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## ORIGINAL ARTICLES

### EMANCIPATORS*

BY HARVEY CUSHING, M.D., F.A.C.S.

IT has been given to few so to identify themselves with great benefactions to humankind that the bare mention of their names will forever suggest equally the man and his legacy. We may celebrate the discovery of anaesthesia with disputed remembrance of those who made this great boon possible; or we may remember a name like that of Pinel and recall, some of us, but vaguely what it was he did for humanity's sake.

Rarely is it safe to prophesy any durability of recognition, whatsoever the accomplishment. Fame that is contemporary, fame that for a time endures, and fame that actually accumulates differ in quality as differ the flash of a meteor, the glow of a comet, the permanence of a fixed star. Only when the contemplation of both the man and his achievement truly inspires and ennobles us will they remain indivisible, to be praised by the people for time everlasting.

On a May morning a few weeks ago, I stood at the portal of the Lincoln Memorial in Washington and with the depth of emotion the spot engenders gazed upon that marvelous seated figure of the Emancipator there enshrined. And as I read again those familiar phrases spoken at Gettysburg, there came to mind how comparable were he and Lister in their service to the proposition that all men are created equal. Lister freed man from the shackles of sepsis; Lincoln, a race from those of slavery. Yet how different the men, their medium of service, and the manner by which the seemingly inevitable was thrust upon them.

Who have made the greatest gifts to their fellowman? Those who have left an idea that has supplied, like the utterances of Christ, what minds have yearned for? Those who have added to his physical comforts and have found ways to lessen hunger and want? Those who have added to his conveniences and devised means to lighten his labor? Those who have, like Lincoln, freed him from bondage and like Lister released him from the horror of suppuration? One answer certainly can be made: that only when the gift requires self-denial and only if the giver be one that walketh uprightly, and worketh righteousness and speaketh the truth in his heart, will he, like St. Francis, come to be canonized and forever blest.

Often when issues are critical, circumstances so combine as to bring the right man, at the right time, to the right place. But rarely is an individual so caught up in the vortex of a revolution in thought as unmistakably to be at its very centre. It is idle to speculate whether the opportunity more often makes the man, as was perhaps true of Lincoln, or the man the opportunity as was more apparently the case with Lister. All that matters is that the conjunction should take place. The opportunity of doing something of lasting benefit to our kind doubtless lies before us all. Yet even have we the imagination to realize it, we want the courage to grapple with it, the tenacity to hold it, the persuasiveness and unselfishness which can alone make converts and disciples.

Whereas circumstances pitchforked Lincoln into his position of responsibility, Lister, horrified at the condition in which he found surgery, deliberately elected to crusade against the most serious obstacle in the way of its advance. Were these men accidental or inevitable? Suppose they had been born into the world fifty years earlier or fifty years later: would they have been unknown and unnamed or would their particular form of genius have found an outlet for its expression at any place and time?

Was it mere chance that the anti-slavery movement came to be focussed on Lincoln? Did the other happen to make himself the focal point of the movement to banish sepsis merely because Pasteur's studies of fermentation gave the clue and because the science of bacteriology, already conceived by Lister, was about to be born to smooth his path? Or were they merely swept along as part of a greater all-embracing will, each in his different sphere singled out by the finger of destiny for a significant rôle which some other might well enough have filled?

What preparation had either of these two? An obscure, uncouth, backwoods lawyer, the very product of the soil, was suddenly by God's will lifted to an eminence where, surrounded by hostility and innuendo, he must shoulder burdens and make decisions affecting the permanency

*An address at the Lister Centenary exercises held at the University of Edinburgh, July 20, 1927. Reprinted with some modifications from the London Lancet for July 23, 1927.

not only of a nation but of the institution of slavery as well.

In Lister's case, what preparation? An utterly different background, to be sure, yet also a sensitive man to whom strife was hateful, he too was drawn by God's will into a position where, faced by opposition and misrepresentation, he must make a fight for the truth. And why? Simply because he had set out innocently enough to answer questions. Why does the pupil contract? Why does the blood coagulate? And later: why do wounds fester? To this well hidden secret he found an answer in which others, to whom lives were entrusted, must be made to believe.

We may well doubt whether blind fortune could have lifted from the crowd any more practical, humane and earnest men, equally far removed from motives of self-interest, who could have filled, as they did, their difficult and lonely places. What was to be done must be done largely single-handed, for when numbers are concerned in mighty decisions, it is a matter of uncertainty whether they will add to the confidence or to the discouragement of him who must lead at any cost. Faith they had, soon conviction, and ere long experience. The only faith (it has been said) that wears well and holds its color in all weather is that which is woven of conviction and set with the sharp mordant of experience.

Both faced situations without precedent and by the aid of instruments found or devised by themselves arrived over untried ways through the process of reasoning and experiment: one that a nation's life might not be lost in conducting a war of principle for want of a moral hold on itself; the other that the lives of countless people irrespective of nationality might not be sacrificed because of skepticism and ridicule. Exceedingly little was the encouragement received from their professional brethren. Belief in Lincoln rested with the common people; it was the students who gave testimony to Lister when others doubted.

As one met a hostile neutrality abroad, so did the other at home. But the more they were tried, the stronger they became; for both in dealing with their opponents showed that sweet reasonableness of disposition which is not embittered by hostility. Each of them had the common sense and fixity of purpose not to let the real issue become submerged in the public mind through fruitless disputes about its consequences. Yet each was his own most severe critic and each had the honesty to admit whatever of truth there might be in adverse opinion. Said Lister: "Next to the promulgation of truth the best thing I can conceive that a man can do is the recantation of a published error." And in the end, the cautious but steady advance of Lincoln's policy during the war and of Lister's experiments during his patient struggle to get at the truth left a well paved road behind them along which anyone, not blind, could follow and be convinced.

Lincoln was spared much of what Lister endured. Had Lister possibly been the victim himself, as other surgeons have been, of an accidental wound-infection after he had made his great demonstration, he too might have been enrolled as a martyr and have escaped the trials and humiliations to which he was long subjected. An awkward civilian during times of great military achievement, Lincoln has left behind him the memory of a grace higher than that of mere breeding, a fame beyond that of any conqueror. Lister was to the manner born and survived to see a grateful world at his feet; yet, so strong and persuasive is honest manliness, he also has left the memory of that nobility of soul which makes him kin to all mankind.

One for an ideal; the other for an idea. One by proclamation; the other by demonstration. To establish the ideal took countless lives. Because of the idea more lives are saved each year than were lost in that prolonged civil war. But for us the living—as a dedication to the great task remaining before us—it was Lincoln who at a time of trial put into words for a people what Lister for a profession might have said with little change:

> With malice toward none, with charity for all, with firmness in the truth as God gives us to see the truth, let us strive on to finish the work we are in; to bind up the people's wounds, to care for him who shall have borne the battle, and for his widow, and his orphan—to do all which may achieve and cherish a just and lasting peace among ourselves and with all others.

The act on which Lincoln's life centres itself is not that for which an adoring nation has put a halo round his memory. Rather have a people once divided, come to look upon him as expressing what they would wish to have represent them before the world. He thereby has become a symbol from which his countrymen reap a harvest of precious associations. So may our profession reap from Lister's life something far more precious than pride in his accomplishment and the satisfaction of claiming him as our own, namely that spiritual harvest which comes from the example of an unblemished character, for kindness, meekness and comfort were in his tongue.

Though lives die, the life is not dead; and the memory of lives such as these will be reverently and forever shared not by a profession alone, not by a nation alone, but by the universal brotherhood of man.

# TREATMENT OF EMPYEMA IN CHILDREN BY THE CLOSED METHOD AND SUCTION DRAINAGE*

BY DAVID W. PARKER, M.D., F.A.C.S.

EMPYEMA has been a subject for discussion by medical men since the time of Hippocrates and still carries such a mortality rate and percentage of serious complications that it continues to merit the careful consideration of any body of surgeons.

This disease in infancy and childhood is particularly hazardous and presents many problems very different from those encountered in adults. I think it is fair to state that its successful treatment requires a nicety of judgment and infinite attention to detail on the part of the surgeon unsurpassed in hardly any other condition. I do not feel that the diagnosis of this condition requires any discussion because, as a rule, it offers little difficulty. I believe, however, from a practical standpoint, we must recognize the two general types of the disease:—The Synpneumonic and the Metapneumonic.

The Synpneumonic is characterized by a very early pouring out of a rather massive sero-fibrinous pleural effusion which soon becomes sero-pus; in appearance like turbid serum. The offending organism in this group is usually the streptococcus.

The Metapneumonic type follows a period of illness which can many times be identified from the history alone as a pneumonia. The child is apparently getting well and then starts to run a temperature and have other signs of a fresh infection. The infection is nearly always the pneumococcus. These cases are not infrequently assumed to be an unresolved pneumonia. In this connection I cannot urge too strongly an X-ray examination, when available, or exploratory aspiration of the chest when the least doubt exists as to the correct diagnosis.

In the diagnosis of empyema, I feel that the greatest reliance may be placed on the X-ray and the aspirating needle, and think that the dangers credited to the use of the needle for diagnosis have been much overestimated. I have no hesitation whatever in introducing a large calibre hypodermic needle attached to a syringe into a child's chest to confirm or disprove the presence of pus. Much information also may be gained in this way as to the character of the pus, if present, and the type of infection. Information which may have a direct and vital bearing on subsequent treatment.

This means of diagnosis is much more reliable in children than in adults, as the tendency to pocket is much less and there is very seldom difficulty in obtaining pus through the needle.

Prognosis:—Statistics have shown that empyema in children is a very grave condition especially in the first few years of life regardless of the type of treatment.

Wilenski in an analysis of 200 cases occurring in the Mt. Sinai Hospital reports:

| | | | |
|---|---|---|---|
| Under 1 year | 44 cases | 21 deaths | 47% |
| 1 to 2 " | 67 " | 21 " | 31% |
| 2 to 3 " | 29 " | 12 " | 41.3% |
| 3 to 4 " | 18 " | 0 " | 0 |
| 4 to 5 " | 13 " | 2 " | 15.3% |
| 5 to 10 " | 29 " | 1 " | 3.4% |

Holt also gives a very interesting analysis of 126 cases.

46 treated by simple incision with following results:

| | | | |
|---|---|---|---|
| 1st year | 16 cases | 3 recovered | 13 died 81% |
| 2nd " | 21 " | 10 " | 11 " 52% |
| Over 2 years | 9 " | 6 " | 3 " 33% |

34 treated by Rib resection:

| | | | |
|---|---|---|---|
| 1st year | 9 cases | 2 recovered | 7 died 77% |
| 2nd " | 22 " | 11 " | 11 " 50% |
| Over 2 years | 3 " | 3 " | 0 " 0 |

46 treated by Siphon drainage:

| | | | |
|---|---|---|---|
| 1st year | 20 cases | 8 recovered | 12 died 60% |
| 2nd " | 17 " | 6 " | 11 " 64% |
| Over 2 years | 9 " | 8 " | 1 " 11% |

Ladd and Cutler in a series of 48 cases under 2 years report a mortality of 35.41% but further state that the mortality was much higher in infants under 1 year.

The mortality rate is further influenced in these young children by the character of the infection. The streptococcus cases seem to be particularly fatal. According to Holt in a rather large series under 3 years the mortality rate was 79% for streptococcus and 56% for pneumococcus. Fortunately, however, the pneumococcus type is the predominating one. According to Metter in 110 cases 54.6% were pneumococcus and 17.8% were streptococcus.

The rate is also influenced by the time of operation. It was clearly brought by the Empyema Commission during the war that cases operated during the Synpneumonic stage when the effusion was still in the sero-fibrinous or sero-purulent stage were attended by a terrific death rate. This was particularly true of the streptococcus type.

From the figures just quoted it is easy to understand that the choice of treatment in these cases has been and is still a much mooted question. It is universally recognized and accepted that pus in the pleural cavity must be removed, but the method for its removal, which will be attended by the least shock and immediate mortality and followed by the fewest number of complications and sequelae, is a problem which is far from being solved.

*Read at the 29th semi-annual meeting of the New Hampshire Surgical Club at Keene, N. H., May 3, 1927.

The open method of rib resection gives a freer avenue of drainage and accessibility to the pleural cavity but usually requires general anaesthesia and has unquestionably an added operative shock and potentially greater danger of immediate mortality. Whether this procedure will give a higher percentage of cures than the so-called closed method of intercostal drainage will require, I believe, much more study before any definite conclusions can be made.

The closed method is attended by more danger of blocked drainage and unquestionably requires much more personal attention by the surgeon but the operation is certainly much simpler, and can be performed under novocaine anaesthesia. There is no shock and the problem of subsequent drainage has been simplified by the use of chlorine solution and offers no insurmountable difficulty.

Holt believes the closed method to be the one of choice. Ladd and Cutler, however, in an analysis of 266 cases conclude that rib resection, except in selected cases, viz.:—Streptococcus infection, gives more satisfactory, immediate, and remote results. 42 of this series were operated on by the closed method with 12 deaths and 21 required re-operation for blocked drainage or pleural adhesions.

I hold no brief for either method but like many other surgeons was dissatisfied with the results I had been getting by open rib resection with subsequent long drainage and mixed infection. Following the war I was much impressed with the reports of treatment by closed intercostal thoracotomy and siphon drainage, and determined to try this method on a series of cases. Since 1921 I have operated on 18 children under 10 years of age by this method with 1 death. I appreciate that this series is far too small to offer a basis for any conclusions but from the fact that these were consecutive cases, most of them clinic and not selected, I feel that the results obtained may at least be of interest.

Two of these cases were under 1 year of age. One of them was a neglected case with a fluctuating swelling in the axilla which changed size in respiration,—almost an Empyema Necessitatis. This child had a staphylococcus infection with a metastatic abscess in the frontal region over the eye, and another in the deep tissues of the forearm. Both of these children recovered.

Six cases were between 1 and 2 years; 3 were pneumococcus infection, 2 streptococcus, and 1 not reported, but probably pneumococcus. 2 of this group were complicated by abscesses of the chest wall around wound of entrance of drainage tube, and 1 by a recurring pneumonic process. 1 case in this group, a streptococcus haemolyticus infection, died. This child had been sick for nine days, and was desperately ill upon entrance to the hospital, and died three hours after thoracotomy with a temperature of 108. There were 4 cases between 2 and 3 years of age, all of pneumococcus infection; no death. 2 cases between 4 and 5 years of age; 1 a pneumococcus and 1 a mixed infection. The child with the pneumococcus infection had been sick for 16 days before operation. This child developed a pericarditis with effusion a few days after operation, and was desperately sick. Under complete rest, however, she has been gradually improving. X-rays show the chest to be clear. Between 5 and 10 years there were 4 cases of pneumococcus infection, with no deaths.

| Ages | Cases | Pneumo-coccus | Strepto-coccus | Staphyl-ococcus | Mixed | Complications | | Re-operation | Mortality | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Meta-Static Abscess | Peri-carditis | | | |
| - 1 Yr. | 2 | 1 | | 1 | | 1 Necessit | | 0 | | |
| 1-2 Yrs. | 6 | 3 | 2 | | | 2 Pneumonia | | 0 | 1 | 3 hours Streptococcus |
| 2-3 Yrs. | 4 | 4 | | | | | | 0 | | |
| 3-4 Yrs. | 0 | | | | | | | 0 | | |
| 4-5 Yrs. | 2 | 1 | | | 1 | | 1 | 0 | | |
| 5-10 Yrs. | 4 | 4 | | | | | | 0 | | |

The technique employed has been the same in all of these cases. Before operation is performed exploratory aspiration is always done, in the posterior axillary line, usually between the 7th and 8th ribs to determine the character of the exudate. If the fluid is frank pus thoracotomy is performed immediately. If it is serofibrinous, or thin and slightly turbid in character, aspiration alone is done to relieve pressure symptoms, and thoracotomy deferred until the character of the exudate changes.

Novocaine infiltration anaesthesia was used in all except one case. An incision, about 1 to 1½ inches in length, is made in the posterior axillary line between and parallel to the 7th and 8th or 8th and 9th ribs, down to the fascia covering the latismus dorsi muscle. The fascia of the muscle is then incised in line with the muscle fibres. The muscle is split, and the ribs and

intercostal space exposed. The intercostal muscle is anaesthetized with novocaine and perforated with a pair of sharp forceps or scissors. Pus, which is usually under pressure, appears through the opening. A catheter, from a 24 F. to a 27 F., is now introduced.

Previous to the operation a piece of rubber dam or sleeve of a rubber glove, about 3 inches square, is perforated in the middle and drawn over the catheter. This rubber dam is tied around the catheter about 1½ to 2 inches from the tip. This makes a shield which is approximated to the chest wall. An extra eye is also cut in the catheter. After introduction of the catheter into the chest it is clamped as soon as pus begins to run through it. The skin incision is now closed with two or three sutures. The rubber dam is smoothed down against the chest wall and sealed in position with wide adhesive plaster strips. The catheter itself is further anchored with plaster strips.

A syringe is now attached to the catheter and the pus aspirated. The aspiration is stopped immediately upon the first sign of coughing or discomfort. A large dressing with swathe is now applied, and the child is put to bed in a sitting position. The catheter is connected by glass and rubber tubing into a five pint bottle on the floor. This bottle is filled with water above the end of tubing, which makes a water seal. The clamp is now removed from the catheter.

This technique has no special advantage over the Canula method except that no special instruments are required, and any size catheter may be used. Also in the Canula method the rubber dam shield cannot be used unless it is attached to the catheter after introduction, which is rather a difficult procedure. I believe the rubber dam shield to be a distinct advantage, as, without question, it does exclude inspired air around the catheter, especially after a few days, when the catheter invariably becomes loosened. A third advantage to this method is the ease with which the catheter can be removed and re-inserted.

After treatment:—Twenty-four hours following the operation the chest is irrigated through the catheter every two hours with 1 p.c. Chlorazine Solution, and this procedure is continued throughout the convalescence. There may be considerable difficulty for the first few days on account of blockage from fibrin, but the Chlorazine Solution acts as a solvent to the fibrin, and after the first week the injected fluid returns through the catheter without obstruction.

The irrigation is done with a 30 c.c. syringe. A syringe full is slowly injected and withdrawn. The tube is now clamped, syringe removed, and refilled with fresh solution. The syringe is again attached to the catheter, clamp removed, and fluid injected. During the first few days if there is difficulty in withdrawing fluid it is allowed to remain in the chest, and will usually drain into the syphon bottle. At no time is over 60 c.cs. of fluid injected and allowed to remain in the chest cavity.

After the first few days it may be noticed that the fluid injected comes back around the catheter onto the dressing. This has no significance as the rubber dam still acts as a seal to the inspired air.

The frequent use of Chlorazine or Dakin's Solution as an irrigation, I consider the most important part of the whole treatment, and I believe that if there is any significance to the low mortality rate and absence of complications in this series of cases, that it is due to this procedure.

Chlorazine Solution acts as a solvent not only to fibrin, but also to fibrinous and partly organized pleural adhesions. This solvent effect together with the negative pressure obtained by the syphon drainage to my mind has a direct effect on the expansion of the lung.

The average time that the tube was left in in this series was between 15 and 20 days. In a few of the cases it was necessary to remove the tube and clear the fibrin, and re-insert. It was always possible to do this painlessly without an anaesthetic of any kind. The children were comfortable during the convalescence, and did not complain of any pain from the drainage tube.

Patterson reported before the New England Surgical Society in 1925 a series of 21 cases, 8 of which were under 5 years of age, 6 under 10 years, and 4 between 10 and 20. There was one death in this series. This death was a boy of 6 who died 25 days following operation and "was undoubtedly due to a thrombus." Autopsy showed a thickened pleura but no exudate. His technique was very similar to that employed in my series.

Conclusions:—1. Infants and young children whose resistance has been lowered by a previous pneumonic infection do not stand the added shock of general anaesthesia and operation of any magnitude well.

2. The operative treatment of choice is that which can be performed painlessly under local anaesthesia, with a simple shockless technique which is consistent with adequate drainage.

3. The use of chlorine solutions as frequent irrigations is a very important part of the treatment, not only on account of the anti-septic properties of the chlorine, but also on account of its solvent action on fibrin and pleural adhesions.

4. The low mortality rate and freedom from more than temporary complications obtained by this method in my own small series of cases and also by Patterson in his series justifies its serious consideration and further trial.

Dr. George F. Dwinell, one of my associates at the Elliot Hospital, Manchester, was to have

discussed this paper but was unable to be present. He has had five cases under 10 years of age, with no deaths. All of these cases were treated by the closed method and suction drainage. The Canula method was used. The tube was left in from 18 to 30 days. There were no complications, no pleural adhesions, and no reoperations. Chlorazine was used every 2 hours.

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I wish to take this opportunity to express my appreciation to Dr. Benj. P. Burpee, my associate at the Balch Hospital, for his valuable assistance in the care of these cases, and also to Dr. A. S. Merrill for his coöperation in the interpretation of X-ray plates.

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Annie Bosioik. Age 1 year.
Admitted October 3, 1921; discharged November 5, 1921.
Empyema Necessititis. Metastatic abscesses.
W.B.C. 22,400. H.G.B. 55%. Operation October 4, 1921.
Tube removed on 21st day.
Note: November 4, Discharged. Empyema sinus healed. General condition much improved. Lungs well expanded. No consolidation. No rales.

Robert Hamilton. Age 3 years.
Admitted July 8, 1923; discharged September 11, 1923.
Admitted with lobar pneumonia. Chest aspirated July 19; small amount medium thick greenish pus. Pneumococcus. Operated.
Note: August 18, Slight rise in temperature. Signs at left base consistent with either lung condition or fluid. General condition good. Looks well. Wound healed. Dullness around incision with greatly decreased bronchovesicular breathing. Numerous inspiratory rales throughout this area close to the ear. Think pathology is in lung rather than in cavity.
Later abscess of chest wall around sinus; opened; treated.
Tube removed 25th day. Plates—July 28, August 29, 1923.

Blanche Daneault. Age 8 years. Left chest.
Admitted August 10, 1923; discharged September 5, 1923.
No definite history of pneumonia. Aspiration of chest shows pus.
Operated August 10. Large amount thick, greenish pus.
Tube removed 18th day.
Plates—August 10, 29, 1923.

Dorothy Sweezy. Age 2 years. Left chest.
Admitted to hospital February 18, 1924; discharged April 5, 1924.
Onset pneumonia 5 weeks.
Note: February 19, This morning child had violet paroxysm and vomited or coughed a large amount of frothy, greenish, purulent material. Probably empyema broke through a bronchus and discharged through the mouth.
X-Ray taken yesterday shows entire left chest full of fluid.
Tuberculin negative.
Note: April 1, Lungs are clearing slowly.
Note: April 5, Child taken home against advice.
Plates—February 18, 20, 28, 1924; March 25, 1924.

James Hastings. Age 2½ years. Left chest.
Admitted to Hospital May 26, 1924; discharged June 26, 1924.
Onset ? of pneumonia 4 weeks. L.M.D. said ? whooping cough.
Examination—Left lung flat. Heart apex visible and palpable just inside right nipple. Operation May 27; greenish pus under pressure. Pneumococcus. Tube out June 18, 16 days.
Note: June 23, There is slight dullness throughout entire left lung. The breath sounds are slightly diminished. There are no rales, and the lung seems expanded.
Plates—May 27, June 12, 20, 1924; April 25, 1927.

Roger Lavalle. Age 15 months. Right chest.
Admitted to hospital June 14, 1924; discharged July 25, 1924.
Onset 4 months ago. First symptoms noticed: Cold, discharging ears, blood and pus. For past two weeks has been coughing, breathing labored, color poor, patient very weak.
P. E. Whole right chest dull. Bronchial breathing. No rales.
Tuberculin negative. Operation June 17. Haemolytic streptococcus.
Note: June 23, Temperature elevated. No drainage through tube. Tube removed. Tube reinserted June 24. Temperature probably due to some lung infiltration.
Note: June 24, Tube reinserted. Very little drainage.
Tube removed 16th day.
Note: July 10, Wound healed.
Note: July 21, Child has gained 1 lb. 6 ozs. in 11 days. Appetite very good.
Note: July 25, Lung well expanded. Sounds normal except for slight dullness and diminished breath sounds at the right base. No rales.
Plates—June 14, 20, July 23, 1924: April 25, 1927.

Robert Savoy. Age 6 years. Left chest.
Admitted June 19, 1924; discharged July 14, 1924.
Onset pneumonia 3 weeks. Desperately sick. Delirious and dyspneic. Mixed infection. Tube removed on the 16th day.
Lungs clear on discharge from hospital.
Plates—June 19, 30, July 6, 1924.

Rudolphe Lasalle. Age 22 months. Right chest.
Admitted April 6, 1925; discharged April 26, 1925, against advice.
Complication: Abscess of chest wall around sinus. Pneumococcus infection. Duration 2 weeks.
Note: June 1, L.M.D. reports that child had a large abscess at site of incision, which broke and since then baby has improved.
Tube removed on 15th day.
Plates—April 6, 19, 24, 1925.

Maurice Connor. Age 7 years. Left chest.
Admitted May 23, 1925; discharged June 15, 1925.
Onset pneumonia—duration 5 weeks.
Tube out on the 17th day.
Discharged. Wound healed. Chest clear.
Plates—May 25, June 1, 13, 1925. Report April 25, 1927. O. K.

Peter Maharr. Age 7 years. Right chest.
Admitted December 1, 1925; discharged December 20, 1925.
Onset pneumonia 2 weeks. Pneumococcus infection.
Tube removed on 15th day.
Slight serous discharge from the wound. Lung clear.
Plates—December 1, 7, 8, 1925.

Roger Gagnon. Age 3 years. Right chest.
Admitted June 2, 1925; discharged June 26, 1925.
Pneumonia onset 2 weeks. Pneumococcus.
Tube out 14 days. Discharged. Wound healed. Lung clear. General condition good.
Plates—June 2, 8, 24, 1925; April 29, 1927.

Elizabeth Gilbert. Age 7 months. Left chest.
Pneumonia February 16, 1927. Admitted to hospi-

tal March 10. Discharged April 10. Left chest full thick, greenish pus.

P. E. Child acutely ill, breathing rapidly, grunting respiration.

Note: April 6, Both lungs are clear, no rales.

Tube out on 12th day. Pneumococcus infection.

Plates—March 10, 18, 25, 1927. Meningismus.

Gloria Bisaccia. Age 4½ years. Right chest.

Admitted to hospital February 24, 1927. Discharged for treatment at home March 29.

Onset February 20, probably pneumonia.

Operated March 8, 1927. Chest full greenish pus. Pneumococcus.

Complication: Pericarditis with fluid.

Plates—March 7, 23, April 27, 1927.

## SUB-PERITONEAL CHOLECYSTECTOMY*

BY LESTER R. WHITAKER, M.D.

In recent years there have been numerous efforts to render the operation of cholecystectomy safer and less likely to be followed by complications. Many of them have been modifications of Doyen's "subperitoneal decortication." The disadvantage of all these methods is that they involve the usual exposure and trauma of the abdominal viscera. With the hope of obviating these faults in selected cases the writer has evolved the following method, thus far applied only experimentally to dogs.

An incision two inches long is made through the abdominal wall over the fundus of the gall-bladder, which is grasped by an appropriate clamp and pulled up into the wound. A circular incision is then made just below the clamp through the peritoneal covering of the fundus. This is then dissected away from the gall-bladder in the form of a cuff by means of a rather sharp, round-tipped suction dissector, which keeps the field clear of blood at the same time. When the peritoneal cuff is well formed silk traction sutures are placed radially in its upper edge for keeping it open. The top of the peritoneal cuff fills the abdominal opening. There is no necessity for handling the viscera nor packing them out of the field with gauze.

Traction is then made on the peritoneal cuff and on the gall-bladder; using a headlight and a special wire retractor as well as a few special tools for dissection in a deep hole, the gall-bladder is dissected away from its peritoneal covering and from the liver, care being taken to keep close to the gall-bladder in order not to damage either of these other structures. The blood collecting in the cuff, which finally becomes a sleeve about the gall-bladder, is removed by the sucker. During the dissection most of the vessels adhere to the gall-bladder but occasionally one has to be torn off where it runs across to the peritoneal coat. Since bleeding generally comes from the gall-bladder side this can be readily stopped by a touch with the electric cautery or the application of a Cushing silver clip. Before the cystic duct can be isolated the cystic artery has to be crossed. It can be clamped, cut and tied or a silver clip applied. If it breaks loose there is little danger, since all the bleeding is within the peritoneal sleeve and it can be again clamped, or packed if necessary. To determine whether or not the cystic and common ducts are clear of obstruction, the gall-bladder can be opened, its contents removed by sucker, scoop and forceps, washed out with saline, iodized oil injected, pressure exerted and the progress of the oil down the ducts observed by fluroscope or serial radiographs. If this does not seem feasible the oil can be injected into the cystic duct after the gall-bladder is removed. The cystic duct is then clamped, cut and tied. If bile leakage or bleeding is feared a small soft rubber tube is placed in the cavity, being brought to the outside through the peritoneal sleeve, which entirely covers it.

The advantages of the method are: very slight exposure of, or traction on the viscera, no packing, adequate protection of the abdominal cavity, and a very small abdominal incision; which should result in rapid convalescence, a good cosmetic result and freedom from symptoms due to post-operative adhesions.

The disadvantages are: the technique is somewhat difficult; there is some danger in unskilled hands of tearing the gall-bladder away from the liver; of perforating the peritoneal sleeve or the gall-bladder, allowing the leakage of blood, and perhaps infected bile, into the abdominal cavity; of damaging the liver bed; or of hemorrhage from the stump of the cystic artery.

This procedure implies careful selection of cases through recently acquired diagnostic methods. Its factor of safety lies in the possibility that if at any time a condition arises which cannot be met, it can be handled in the usual manner by simply enlarging the incision.

*From the Department of Surgery, University of Rochester School of Medicine and Dentistry, Rochester, N. Y.

## CELIAC DISEASE COMPLICATED BY PURPURA

BY FLOYD R. SMITH, M.D.

A CASE of celiac disease is reported which is of interest because of the complication of purpura and the successful treatment by intraperitoneal transfusion of citrated whole blood.

A white girl, aged 22 months, came under observation June 20, 1926, with evidence of indigestion, loss of weight and distended abdomen. She was the only child of healthy parents; there had been no miscarriages. The patient was born at full term, forceps were used at delivery. Her weight at birth was 7½ pounds. She was breast fed for six weeks, during which time there was a loss of two pounds. Modified milk was tried with success and she passed an uneventful first year, weighing 23 pounds at 12 months. About this time she developed pneumonia from which she apparently made an uncomplicated recovery. Following this illness she began rapidly to lose weight, her abdomen became distended and she grew steadily worse in spite of all efforts to find a satisfactory diet. The use of buttermilk, whey, cereals and other experiments failed to bring about improvement. Seven months after the pneumonia, when first seen by the writer, her weight was only 15 pounds, a loss of 8 pounds in seven months. There had been no vomiting. Mild degrees of diarrhea had alternated with moderate constipation. The diagnosis of rickets and congenital enlarged colon had been made. Physical examination showed a child of normal mentality and marked emaciation. She was very irritable and fretful. The anterior fontanelle was open. The abdomen was greatly distended, and the superficial veins over the abdomen very prominent. Marked tympany existed, but no definite masses and no fluid were detected on palpation. The distention was greater during the latter part of the day than when she got up in the morning. Urine: normal. Stools: lumpy, foul smelling, lemon yellow speckled with pigment. Temperature, pulse and respiration were normal.

Treatment: The patient was put on a diet composed chiefly of ripe raw bananas put through a cullender. This was supplemented by small amounts of meat, fish, eggs, peas and other foods of high protein content. Improvement was immediate, and she gained 5 pounds during the next four months. She then began to lose appetite for any of the foods used, and her weight fell off rapidly. Stools again became typical of celiac disease. After three or four weeks, subcutaneous hemorrhages appeared at various points, especially in the regions of the knees and elbows and over the thoracic vertebrae. There was no bleeding from the gums, but traces of blood appeared in both stools and urine. The white count was 15,000; Hb. 70%. Oozing from the puncture in the lobe of the ear continued 24 hours. Coagulation time was 4 minutes.

The picture presented at this time seemed hopeless. There was extreme emaciation, sunken eyes, and a large abdomen making the prognosis doubtful.

One hundred and fifty c.c. of citrated whole blood from the father was introduced into the peritoneal cavity, followed by 50 c.c. of normal saline. During the next 5 or 6 days the condition of the patient remained unchanged. Then followed marked improvement, new hemorrhagic spots ceased to appear and the old ones vanished. The child began to eat better and the whole picture changed for the better. Except for occasional minor setbacks, improvement has continued up to one year after the banana treatment was started. Her present weight is 27 pounds and she has the appearance of an unusually well child.

The largest number of bananas consumed was 11 a day. At this writing she gets only 5 daily but this is in addition to a well-balanced ration of other foods. Practically no milk has been tolerated at any time since the treatment was undertaken. The child disliked protein milk to such an extent that it was thought unwise to force it, so that this type of milk was not given a fair test.

Comment: Purpura complicating celiac disease is of course nothing new, neither is anything original claimed for the treatment. Such a case is, however, unusual enough to make an interesting addition to the recorded cases of celiac disease. The fact that this case followed in the wake of pneumonia is only another added to the list of those following other infectious diseases.

## THE NEW ENGLAND MEDICAL COUNCIL

THE meeting was held at Portsmouth, June 24, 1927, and was called to order at 10:30 A. M.

Welcome by the President, Dr. David W. Parker, Manchester, who introduced the new members.

New Delegates:

Dr. Herbert F. Twitchell, Portland, Maine.
Dr. William Ellingwood, Rockland, Maine.
Dr. Thomas W. Luce, Portsmouth, New Hampshire.
Dr. Emery M. Fitch, Claremont, New Hampshire.
Dr. Kendall Emerson, Worcester, Massachusetts.
Dr. Frank H. Wheeler, New Haven, Connecticut.
Dr. Daniel Sullivan, New London, Connecticut.

Others present were:

Dr. Franklin G. Balch, Boston, Massachusetts.
Dr. Walter P. Bowers, Boston, Massachusetts.
Dr. George Blumer, New Haven, Connecticut.
Dr. Frederick N. Brown, Providence, Rhode Island.
Dr. Thomas S. Brown, Burlington, Vermont.
Dr. L. P. Gerrish, Lisbon Falls, Maine.
Dr. F. Y. Gilbert, Portland, Maine.
Dr. Edwin A. Hyatt, St. Albans, Vermont.
Dr. Charles F. Painter, Boston, Massachusetts.
Dr. David W. Parker, Manchester, New Hampshire.
Dr. William G. Ricker, St. Johnsbury, Vermont.
Dr. James S. Stone, Boston, Massachusetts.
Dr. George C. Wilkins, Manchester, New Hampshire.
Mrs. John O. McReynolds, Dallas, Texas.

DR. LUCE: Unless there is a special request, I move that the minutes of the last meeting be omitted.

This motion was seconded and carried.

DR. PARKER, President: At this time I would like to bring up a matter that I think might be of interest. We are fortunate to-day to have at our meeting Mrs. John O. McReynolds, of Dal-

las, Texas, the President of the Woman's Auxiliary of the American Medical Association. New England is more or less ignorant of what is being done by the Woman's Auxiliary, and I thought it might be of interest to you men to know a little of the doings way down to brass tacks. If it is your pleasure, we will have Mrs. McReynolds come in. The National Woman's Auxiliary of the American Medical Association was formed five years ago; since that time this body has been organized in 27 states, 8 more states are in process of organization, and it has been recognized by the National House of Delegates of the A. M. A., and a committee of 12 members of the A. M. A. has been appointed in Washington to confer with them in their work. It has the sanction of our national body, and I think it is time that we get familiar with it.

It is moved that Mrs. McReynolds be invited to address this body.

Dr. J. S. Stone presided in the absence of President Parker, who went to escort Mrs. McReynolds to the hall.

The question has been raised as to paying bills of the previous meeting and the one of to-day. The Secretary has the bill of the stenographer of the previous meeting of $18.90, and there will, presumably, be a similar bill to-day.

Moved and seconded that the Secretary after this meeting make a sufficient assessment to pay the previous bill and that of to-day. Carried.

DR. PARKER: Five years ago a movement was started in the State of Texas, called the Woman's Auxiliary to the Texas Medical Society. This movement grew, and later was recognized by the National body in Chicago. Since that time 27 states have been organized with thousands of members, and 8 more are being organized. This promises to be one of the big movements in the medical life of America. We are fortunate to have the President of the Woman's Auxiliary of the American Medical Association with us to-day, who will speak to us.

*To Mrs. McReynolds:* This body of men is representative of all the states in New England, and they are much interested to hear what you have to say.

MRS. MCREYNOLDS: *Mr. Chairman and Gentlemen*—It is needless to say that I feel I am privileged to come before such a body of men, for I think in telling you about our work I might get some instruction which will help us. I feel we need the advice that so large a body of men like yourselves can give, and I feel a personal responsibility in this position. As I see the situation in Dallas, I feel the doctors' wives are growing better acquainted with one another. We began the first Auxiliary in Dallas during the World War. We knew we wanted to be of aid to our husbands, to help our husbands. We had nothing to guide us and we decided we would begin with work in the Red Cross. Eight hundred homes were opened in Dallas, Texas, and as many as 60 boys were welcomed in each of these homes at that time. Every Country Club was also interested. We came into contact with thousands of American boys, and I think in no instance was there any complaint of an ungentlemanly act. We can tell the world that the American boys are gentlemen, and our daughters were introduced to them.

Of course our first work was making Red Cross bandages to send to the soldiers. Dr. Parker has told you how our organization has grown. One of the greatest things the work has done for the doctors and their wives is bringing them into closer social contact. We generally meet on the same evening that the County Medical Society meets. We find the men take greater interest in attending the county societies at that time, and also that it is a great help in creating a spirit of comradeship among the men and the women, and promotes a brighter outlook among the men. We feel that we are not a club, but we are an organization, and as our name implies, we are a reserve force.

Just to give you an illustration of some of the things we have accomplished in the few years we have worked. In Philadelphia, recently, there was a campaign for Governor. One of the candidates had a chiropractor for a physician; the other candidate had a regular physician. The race became very close and one of the doctors called up the President of the Auxiliary and asked for her help. She said, "I would be very glad to do anything for the physicians, provided we are authorized by the President of the County Medical Society." The authority was given, and in one hour's time every member had been told of her duty, to go out and work for the man who employed a physician. In about two days the nomination got so close the men asked the women if they would continue their work among the auxiliaries all over the state. Within 36 hours all of the organizations of the Auxiliary were pledged in this cause, and the right man was elected. That shows what can be done under the guidance of the men. We had impressed upon the men that each woman was a member of one or more clubs. In Washington a group of men was authorized to work as an advisory cabinet. We call upon these men to advise with us as to what would be the best policy in a given instance. The preventive medicine that the men are trying to put over the country is one of our especial interests. By coöperating with the men much is being accomplished. Other states are taking up matters of concern with the women. We want to emphasize state organization. I wrote to the President of the State Auxiliary, and I told her we should begin at home and have the men and their wives and families have physical examinations at regular periods. I had a reply from

her, and she said: "In response to your enthusiastic appeal to have the physicians, their wives and families examined, I had a full day, but I went down and was examined, and to-day I am the happiest woman in the world." She discovered that she had a cancer; that it was only the beginning of serious trouble.

We hope to have these men give us ideas of what they think would be best to put before the clubs. You can see how many thousands of women can be reached in that way. In Texas alone there are 40,000 women. Every club has its Health Program already through its Federation Club. These clubs have not been handled by the doctor's wives in many instances, but women of other cults have grasped the opportunity to put these matters before the country. Chiropractors are putting themselves forward. Bulletins are being circulated, and they say that these bulletins reach over one million people. Each state has its own bulletin. There is a great opportunity for us to do a great piece of work. We want to be sure that we are putting the right work before the world. We want the men to give us their help and guide in putting it in the best possible form. I think you will find doctors' wives are executive, as a rule. In the service in Texas, I find that a very large per cent. (in our own Auxiliary 70 per cent.) have been either Presidents or on important committees, which shows that they are capable of doing good work. They have the time and all of the enthusiasm, and they hope for guidance in the work. I would like to have some suggestion from the gentlemen as to what they think we could do. I know we are now an organized body, and when Dr. Phillips said the men ought to get behind and support us, one lady said, "You cannot drop us. You can have no idea how much enthusiasm we have."

To keep an organization growing, you have to support it in practical demonstrations; carry books, or flowers to the charity patients; we make layettes for the poor women, aprons for the men who work in charity hospitals, have an hour for the children in the hospitals when we tell them stories. I don't know whether you know it, but the old people love candy more than the children do. We look after the World War Veterans, where there may be a group available for educational work. We plan for the things we think will be of interest to the people. We have a Current Events Committee, and anything of interest to the doctors and the doctors' wives is sent to them. We also study, too, the problems of supplying knowledge of proper foods in promoting health, and another thing we have undertaken is to coöperate with the Chamber of Commerce. Every city has a Chamber of Commerce and the National Chamber of Commerce is anxious to have women work with them. I don't think that we could take a step like that without proper advice. Every city having a Chamber of Commerce should include a few doctors in its membership. We especially need some one to finance us. We are like many other organizations, we are very poor, but we have the women organized; we have their enthusiasm; and we need your support and guidance.

PRESIDENT: Are there any questions which Mrs. McReynolds may answer?

Question. How many members have you?

MRS. MCREYNOLDS: Between 8,000 and 10,000, perhaps—that is, almost 10 per cent. of the membership of the American Medical Association. That will be 10,000 when these seven states are organized. When we get New York State organized, that will bring in a large number. Illinois has just organized. The women there are very enthusiastic, because the men are beginning to realize that we can give some service. We don't want to do anything that the men don't think is worth while. We have so much to do, we hope the men will tell us what is best to do. We want to emphasize the idea that we are not a club. The men are very anxious for all of the auxiliaries to be featured in the women's clubs. We feel that whatever is put before the public by the Federation must be provided by the auxiliary. We understand that without the coöperation of the men we may make mistakes. I think the doctors' wives have hitherto been asleep. They have not realized the things they could do for their own cause; but have been engrossed in the activities of other organizations. The question is, what are they to do to-day?

DR. PARKER: Does your body intend to have your State body follow the feeling of the State Medical Association in regard to the Sheppard-Towner Act? You don't wish to take any step on that without the guidance of the American Medical Association?

MRS. MCREYNOLDS: We want the wives of all the men who stand well in their County Medical Society. We can only do things advised by the medical profession; it must be understood that we cannot support anything in opposition to the profession.

PRESIDENT PARKER: Why not affiliate?

MRS. MCREYNOLDS: There are 94,000 men members of the A. M. A. 75 per cent. of them are married, are they not?

PRESIDENT PARKER: I don't know.

MRS. MCREYNOLDS: Just think what a tremendous influence these conscientious women can have; the work that can be done—that can be done in legislation for example. We feel we can carry that influence into the home. We feel in Texas that we should spend our money to send *Hygeia* into proper channels, and we send it to school teachers, and every legislator's family receives a copy. This is just an illustration of part of what we are doing.

Do any of you know the man McCoy, one of the biggest quacks in the country? He adver-

tises in a paper which goes into many different towns. These articles are read, of course. The President of the Auxiliary called up the owner of the newspaper and questioned him concerning why he allowed such advertisements in his paper. He asked her what she meant. She told him that McCoy had no standing in the medical profession; that he ought not to publish such ads in his paper. If every Auxiliary would do this thing, you would find fewer articles of that nature. The papers should be at least requested to look up the standing of the men who advertise.

Of course we are a young organization, and we have not joined the federated club. We hope to get into the club through the members. We don't want to develop antagonism in the Federated Woman's Clubs. I think if we continue to grow by leaps and bounds we may be a stronger organization than the federated clubs. We might be able to do the work and put more influence into the federated club. When I got into this work, I began to write to the different bulletins and I have been watching the things that they have been and are doing. I think there is a great deal of missionary work which can be done, if properly guided.

I have been asked to address a body of women on July 11. I am extremely anxious to know the best way of presenting the subject and the material I should use for that address. I admit that I would like to have the men offer some suggestion, that I might determine the best points to emphasize. This is our first opportunity, as a national organization. If you feel you have not the time to give to that this morning, if anyone of you would write to me and make suggestions I should be pleased. My address is, for the present, Duxbury, Mass.

DR. STONE (Temporary Chairman). Until Dr. Parker comes back, is there anything that you wish to say about the movement of the Auxiliary?

DR. GILBERT: I move that this body endorse the movement for the promotion of a Woman's Auxiliary in each state in New England and the counties as far as possible.

MEMBER: I had not heard of it until this minute.

DR. STONE: Is anyone familiar with the attitude of the A. M. A.?

MEMBER: The officers of the Auxiliary were received by the House of Delegates in Washington, at the last meeting, and given official recognition. They were officially recognized in Chicago about two years ago; I think that is on record.

DR. BROWN: I understand the motion before the House is an endorsement, and I second the motion. Motion put and carried.

DR. PARKER: This is yet a temporary organization and there was a question at the last meeting whether it would not be wise to form a permanent organization at this time. I await your pleasure.

DR. WHEELER: It seems to me we have been running long enough as a temporary organization; it seems we ought to proceed to the election of officers and make it a permanent organization.

Motion seconded.

DR. PARKER: Motion made and seconded that we form a permanent organization and elect permanent officers.

Carried.

DR. PARKER: You will elect your officers.

MEMBER: Move that the Secretary be authorized to cast one ballot for Dr. Parker, as President.

Seconded. Carried.

DR. LUCE: I move the President be authorized to cast one vote for Dr. Walter P. Bowers as Secretary.

Seconded. Carried.

DR. WHEELER: Motion to adopt Constitution and By-Laws; the Temporary Constitution and By-Laws were read.

DR. PARKER, President: You have heard the Constitution and By-Laws read, and you have heard Dr. Wheeler's motion; that this constitution be adopted; what is your pleasure?

Motion seconded.

DR. RICKER: I have been giving this matter of the New England Council some thought, and I do not feel that we are getting what we want out of it. There are two objections. A quarterly meeting is rather expensive and also consumes quite a bit of time. The second objection is that as constituted at present, each state is not sufficiently represented and the officers of the society as a whole must receive their reports second hand. To correct this situation somewhat I am inclined to think that it would be better to have one annual meeting held in Boston, to which the President, Vice-President, Secretary and Treasurer, Councillors, and Delegates to the A. M. A. are all invited, possibly also to include men who are elected as delegates from one State society to another, and also possibly the officers of each State House of Delegates. This would make the attendance if they would all consent to come, over one hundred men, each of course at his own expense. It would be an all-day session from nine in the morning, lunch at noon, and an afternoon session, with a definite program, speakers probably one from each State, making six in all, giving three talks in the forenoon and three in the afternoon with ample time for discussion of each proposition. In this way matters of common interest to the states of New England would be laid before a fairly large group of men, and you know as well as I that if you want to start a keg of beer, four yeast cakes are far better than one-fourth of one. The meeting

might not be quite as free and easy as our previous conferences, but I believe that the results would be far greater than they will be if we continue our present arrangement.

PRESIDENT PARKER: I think one thing in favor of this meeting is the free and easy representation; the possibility of diffusing the ideas of the different states. I would like to hear a free discussion of the subject from the other men.

DR. BROWN of Rhode Island: I think the larger the attendance of delegates the better, because of the diffusing of ideas from the different states; furthermore in selecting these delegates it appeals to me as appropriate that this organization should rule or advise something in their selection as to duration of their term of service. Here we are selecting five men from the State Societies for this Council. They may be for one year. It seems to me they should be for various lengths of time, one for a period of five years, one for four years, one for three, one for two and then one each year. That means that a state would have only one new man, that would be unfamiliar with the procedure of this organization. We cannot dictate to these societies what to do; but we might advise them.

Do I understand that the record of this meeting goes to the members of each Society?

PRESIDENT PARKER: Yes, to each representative and to the Secretary and Treasurer of each Society, and, as I understand it, the tenure of office is three years. At the first election, the states were instructed to elect delegates, one for three years, one for two years, one for one year, and thereafter one delegate each year. I think it might be incorporated in our Constitution and By-Laws, that after our first election each delegate would be elected for a term of three years, one each year. The Secretary does not change each year.

DR. GERRISH: As I understood that discussion in November, the matter was left a little differently, that certain matters might be left to the conference.

PRESIDENT PARKER: As I remember it, it was left that the committees, or any group of men who might be particularly interested in any subject to be taken up, would be notified, and they would have the privilege of entering into the discussion and hearing the matter discussed, whether delegates or not. At the discussion of medical defense, an invitation was given to attend that meeting. That is in our minutes somewhere.

MEMBER: That is the way the Connecticut Society did this year.

PRESIDENT PARKER: I might say that New Hampshire voted to authorize her Secretary to pay New Hampshire's equal proportionate part of the expenses of this Council with the other states. Maine, I think, appropriated $200, a flat sum; Connecticut voted to bear her proportionate share; so that the comparatively small body of men that might not attend would be relieved of the expense.

DR. WILKINS: It seems to me, with a small number of men, the expense would be greater than with a large body, proportionately.

DR. HYATT: It seems to me there are advantages, sometimes disadvantages, either way. It seems to me it would be difficult for me to go back to Carroll County and make our men understand the situation. Could not some way be arranged to let us know just what to do?

DR. STONE: I think that every state should publish the records of the Council in the BOSTON MEDICAL AND SURGICAL JOURNAL and *New Hampshire Reports*, which will go to the New Hampshire members. If any of the State Societies don't care to come in, when the name of the JOURNAL is changed to the New England Journal, it will be easy to have reports of every meeting sent to every Society in New England.

PRESIDENT PARKER: Would it not be possible and feasible for these States, like Vermont, to have a transcript of this Society sent to the State Society and incorporated in that journal?

DR. STONE: I think that every State should have equal representation. That was decided on first. I think the sense of personal responsibility is very much diluted as the numbers increase; but, on the other hand, the larger the representation the more the influence. We have to reach the individual members and the various districts. I think we ought to take it as it is; think it over until the next meeting; act on it at the next meeting. I think the proposition should be very seriously considered and at the next meeting thoroughly discussed and thrashed out.

PRESIDENT PARKER: Dr. Fitch is President of the New Hampshire Medical Society. I think he might have some definite principle to offer.

DR. FITCH: It seems to me these transactions should be gotten into the hands of the members of the different State Societies. I think it would be very helpful, either in the *Bulletin* or in the JOURNAL. We should get out a bulletin to know what this New England Medical Council is doing.

DR. RICKER: I think, with your permission, I will withdraw the suggestion.

PRESIDENT PARKER: I think the suggestion is a good one, and we should give it further thought.

I think we should adopt the Constitution at this time. All in favor of adopting the Constitution, as read?

Seconded. Carried.

DR. STONE: If the members of the Societies are to be effective they have got to know our work intimately and coöperate in the highest degree. If the Societies are willing to assume the expenses pro rata, it would be a very powerful aid if these minutes could be printed by Dr.

Bowers and sent to the several states, to the members of the districts.

*Motion.* That the Secretary of the Council write to the Secretary of each State Society, asking if that State Society wants reprints of the minutes of this meeting to be sent to each member, and state if they do that they will be sent at cost.

DR. BROWN of Rhode Island: Would it not be a good idea for the states having state journals to have it reprinted in their publications? Vermont has a state journal, Rhode Island has one, New Hampshire has no journal. That method might circumscribe the situation somewhat.

DR. STONE: This simply means that the Secretary offer to send to the Secretary of each State Society a transcript of the minutes of this meeting.

Motion seconded.

PRESIDENT PARKER: Dr. Wheeler, you have no journal in Connecticut; are you in favor?

DR. WHEELER: I am.

Motion carried.

DR. WHEELER: The Constitution and the By-Laws provided for the election of a Vice-President. So far we have none. I would like to name Dr. Stone.

Moved that the Secretary cast a ballot for Dr. Stone for Vice-President.

Seconded.

Dr. Bowers as Secretary-Treasurer cast a ballot for Dr. James S. Stone as Vice-President.

PRESIDENT PARKER: Executive Committee of four members, one to be the Secretary-Treasurer, ex-officiis.

The Committee was completed by the election of Dr. Partridge, Dr. Parker and Dr. Ricker.

PRESIDENT PARKER: You were to take up to-day the question of Medical Education and Distribution of Physicians in New England. We are very fortunate in having with us, as our guest a former member of the Committee on Medical Education of the Massachusetts Medical Society, Dr. Charles F. Painter.

Dr. Painter's paper under the title of "Medical Education" was read as follows:

## MEDICAL EDUCATION

THE old adage "there is no smoke without some fire" is often invoked to point the moral of a particular observation. The frequency with which the subject of this talk has figured in medical society discussions, medical journal articles and even in the magazines and daily press would appear to indicate that there was some reason, some smoldering fire, which has prompted all this. It takes a long time to arouse enough interest in this subject on the part of physicians to fan this matter to a point where steps will be taken to settle it—following out the analogy—until a general alarm is rung in and all the apparatus turned out. Twenty-five or twenty-six years ago the country was overrun with proprietary medical schools—institutions where a medical diploma could be secured upon the payment of fifty dollars, after a minimum attendance of six months. The City of Baltimore had at that time as many as nine medical schools, most of them of this order. The American Medical Association, the Association of American Medical Colleges and the Federation of State Boards of Medical Examiners set themselves the task of remedying this situation.

The most feasible way of accomplishing it seemed to be to raise the standards of admission to the Schools. These organizations were powerful enough to compel poor schools to come up to the standards they imposed, go out of business or amalgamate with good schools. There was but little room to increase the entrance requirements except along the lines of general education and the fundamental medical sciences. Premedical courses of one and two years were required and these must be of college grade. Full-time teachers in greater numbers were called for and naturally these were allotted to the Science subjects. This tinkering with the curriculum resulted, as it always does, in complaints. In this instance the complaint was that preparation for the science work of the premedical courses was inadequate and more time must be given to it in the premedical years in order to overcome these deficiencies. The laboratory sciences, having secured a firm hold upon the curriculum, began to exercise the influence which that hold provided. They were full-time teachers, as a rule, not medically trained, and their faith in the supreme importance of their subjects as a basis for the study of medicine, was unbounded. They were research men, many of them, interested in advancing the frontiers of their science, having but little aptitude, oftentimes, for the undergraduate instruction of medical students. Their demands for assistants, expensive equipment and time on the "tabular view," devastated budgets and disrupted Curriculum Committees. The value of research, at first, was for the possibilities of the good which might accrue to the Public through discoveries that might be made. Then it was the distinction reflected upon the University for permitting the conduct of such researches, whether successful or not, and the impossibility of securing the best teachers in an institution where research was not fostered. Now the cry is, that research for the undergraduate is the only sound pedagogic principle upon which his training should be built. An appeal to the public—an appeal to University Trustees, and, finally, an appeal to the student body itself! This is not the time to enter into a discussion of the merits of different types of preliminary medical education. Whether or not you believe, as I do, that whatever the preparation subjects be, either

science or the humanities, languages or mathematics, the sole object is to train the mind for application and to logical, independent thought; or perhaps you are prepared to accept the research idea. In any case I think we should all agree that in practice the actual amount of any of the fundamental sciences which is employed in the treatment of one's patients is negligible and even the amount we practically have to know for diagnostic purposes is very small indeed. Of course the more familiar one becomes with Chemistry, Biology, Physics and Bio-chemistry the more interest there is in practice but no such stimulus is needed for a true physician. It is very desirable that a medical student should be conversant with the fundamental principles actuating the scientific pursuit of truth but that does not mean, nor should it mean, (and indeed it can *not* mean) that a medical student should aspire to be a research worker in any fundamental medical science. Not one in one hundred is qualified and so valuable are they, that when found, they should be taken out of whatever they are doing, subsidized if necessary, and put to work upon research problems in institutions provided for that purpose. When, and if, their researches have proven of value to the practice of medicine then let such results be made available for general professional use. The practice of medicine has provided a field for research for those in whom that faculty resides, as was evidenced by the life of Sir James MacKenzie to cite only one recent instance, but for the vast majority of men in the general field there is no such future. Medicine has advanced and will continue to do so through the efforts of those who have the vision to advance it but the place for its frontiers to be pushed forward is in the endowed institutions devoted to research, with the help of those isolated instances of clinical researchers who do not find themselves able to work in a laboratory environment. Don't let us allow our schools to make themselves over into undergraduate research laboratories for the exploitation of scientific research, for there is no room there, for the cultivation of the *art* of practice. To what has this type of medical teaching led? Allowing for the differences in the allurements of city and country life there is still much to be accounted for in the manifest tendency for the graduate of to-day to remain in urban rather than go into extra urban practice. How can one expect him to do otherwise when he feels that no case has yielded all the information he must have to establish a diagnosis unless a Wassermann has been done, the spinal fluid been withdrawn and cytological studies made upon it, the sugar tolerance estimated, the basal metabolism tested, a differential blood count made, a series of gastro-intestinal X-rays read, test-meals given, the gall bladder visualized and kidney function determined? So far as the questionnaires sent out by the Commission on Medical Education have gone they show, that in the practice of those to whom these have been submitted, a very high percentage of the cases coming to them for diagnosis and treatment, do not fall into the group where such studies are of essential significance. In other words the vast majority could be successfully diagnosed by the employment of methods long in use, thoroughly tried out, requiring only the simple technique possessed by all who were trained so long ago as twenty-five years. Over-specialization on the medical school staff breeds over-specialization in the field of practice. One of the chief complaints registered with the Commission was this very thing, viz: that the modern medical school has too many specialists on its teaching force. The student sees too little of the common everyday diseases and altogether too many unusual, out-of-the-ordinary lesions. The question of full-time teachers was not long confined to laboratory subjects for the teacher in the clinical branches who was to head a department requiring the amount of organization which a modern surgical or medical service demands, it was argued could do nothing else. The issue here is, who is the better guide for the young medical student the clinician whose contacts are altogether with sick persons in their homes or with one who devotes his entire effort to the conduct of a Hospital ward where his time is divided between administrative details, the direction of the activities of a group of research assistants and the care of those admitted to his service, in whom he can have only an academic, scientific interest. It is no argument in support of the contention that the full-time teacher is the better, that medicine has made such advances that it is hopeless to try and compass its activities by part-time efforts. If it were true that medicine is a science this might be logical but at the most science is only the handmaiden of practice and the man who is nearest to his patients through contacts secured in the environment of their home is a far better mentor of their period of training than a more scientifically trained teacher. Social service workers can never supply this defect in the full-time professors' equipment. We should, I believe, stand out against this as an evil in our educational system. Reference has already been made to specialization but chiefly in its bearing upon the personnel of the medical school faculties. We should insist, on the part of the schools, upon discouragement of immediate specialization after graduation.

This can be done by reducing the time allotments in the curriculum for the various specialties to that minimum which will furnish the student the rudiments of diagnosis in the various special fields, but not encourage him too much to become interested in a particular line of practice. From a teaching standpoint there

are several subjects now given the prominence of an independent course which should be reallocated under a departmental heading; this would tend to keep them within bounds. For example, orthopaedic surgery should not appear in the catalogue of a medical school as a special department but should be listed as a subdivision of surgery and its senior instructor should rank as an Associate or Assistant Professor of Surgery. Serology, Haematology, Roentgenology should be placed under the departments of Pathology, Clinical Medicine and Surgery, respectively, the heads of those departments, in departmental conference, determining how much prominence should be given the instruction in those subjects. I believe organization of Medical School faculties on a departmental basis with frequent departmental conferences and with the assignment of specialized subjects under one or another of the great divisions of a medical school would bring the control of the tendencies of both faculties and students to a saner footing. The next step would be to provide a special two or three year course, one year, at least, of which should be passed in a special Hospital. Upon satisfactory completion of this course the graduate should be given a degree, in addition to his already obtained medical degree, which should rank, academically, with a master of Science, indicating to the Public the possessor's qualification for his particular specialty. This would ensure less and better specialties and would provide a field for teaching on the part of those who, when on the undergraduate faculty, are all the time seeking more time for and attaching too much importance to, their own courses. I have touched thus briefly upon a few points wherein it seems to me our Schools are drifting away from their main purpose, which all seem to agree is the training of general practitioners. Is it not legitimately the province of doctors as individuals and collectively as societies, to influence the character of the training that the Schools provide? Intelligent and informed discussion upon such subjects is perfectly feasible and may very properly be brought before Societies of Physicians. It is not pedagogics that is up for discussion on such occasions; it is what can improve preparation for the practice of that art to which all have devoted a greater or lesser portion of their adult lives. Certainly about that we should have some opinion and the longer we have been at it, provided we have kept abreast of the times, the more valuable will that opinion be. Because Medical Education has been one of the first subjects you have assigned for consideration I venture to hope it may be a subject upon which the Council may focus some of its effort. If so, may I remark that the questions which seem most vital are, first, the premedical requirements. We are, of course, in favor of all the mental discipline a man may procure. I believe one Science subject, well taught, would be enough and I am confident that the humanities provide as good a preliminary medical training as does Science, and a far better cultural background, which is of the greatest importance to a practitioner. This I know is heresy and is probably an impracticable suggestion, but is I believe, nevertheless, true. Secondly, the idea must never be lost sight of viz: that the general practice of medicine is an art and whatever the value of science and research in furthering the purposes of the Art, they must ever be regarded as subordinate to the teaching of how to care for the sick public in their homes. The phrase "in their homes" should be interpreted to mean as individuals and not as interesting phenomena whose study may amount to something, provided enough of the same kind turn up. If the composition of the medical faculty is too dominantly laboratory; if the lines of practice represented in the teaching force are drawn on those of a narrow specialization; if undergraduate research is encouraged or if clinical teaching is headed by full-time Professors, particularly if they are so young that they have been promoted from resident positions on Hospital staffs, then the type of graduate is most certainly not likely to be the one that will join the ranks of the general practitioners of medicine. A commonly voiced complaint about the teaching in Medical schools is that too much laboratory technique is taught. This was frequently expressed by those who answered the Commission's Questionnaires. Predominance of specialists; encouragement of undergraduate research; full-time clinical teachers and elimination of the cultured features of the courses regarded as essential for the preparation of a student who desires to study medicine—these are the most urgent matters that confront those who are interested in the way medicine is taught and are in a position to exert some influence in the matter. A second question, which is looming large, is how best to help the general practitioner keep abreast of the rapid advances medicine is making. If this can be satisfactorily accomplished a long step will be taken in making a modernly trained physician content to settle away from the urban medical centers. If he is successful he knows how easy it is going to be for him to drop behind, for he will be too busy to study as he ought. He also knows that the chances are if he is unsuccessful, but not lazy, it is because he has failed in the competition with more up-to-date practitioners. Many states have attempted to solve this problem in various ways, notably Michigan, Wisconsin, Ohio, Pennsylvania, New York and North Carolina. In all, though the particular methods may have varied, the principle has been to carry the instruction to the doctors in the rural communities and not take him away from his work. It has seemed to some of us that herein

lies a suggestion for the Council of the New England States. Through coöperation of these State societies and the resources they could readily muster it would be easily possible, in a compact territory like New England, to reach the most remote regions and bring modern medicine periodically to the doors of the most benighted practitioners in a way that would be most economical of their time and money. Certainly the public would be the gainer and incidentally the Cultists would be hard hit. It would not be difficult to interest the Medical Schools of New England (Yale, Harvard, Boston University, University of Vermont, and Tufts) in a practical type of University extension work and with them would join many public health organizations e. g. Child Welfare, Mental Hygiene, etc. It would seem to me that such an endeavor would be extremely worth while for the sake of the organization itself, for it is absolutely essential that an organization of this character should have some large object about which it may crystallize its activities—something definite, tangible and worth while doing. A committee to survey the field, find out the needs, study similar efforts in other localities and formulate a tentative working plan would constitute a good beginning.

PRESIDENT PARKER: I am going to say now, that New Hampshire at the last meeting of the House of Delegates voted to sponsor conducting a Medical Course at Hanover, open to the members of the Society, at a cost not to exceed twenty dollars, extending over a period of possibly two or three days. That is along the line spoken of by Dr. Painter.

DR. THOMAS S. BROWN, President of the Vermont State Medical Society spoke on

## DOCTORS IN AND FOR RURAL COMMUNITIES

THE question seems to be concerned with the present and future supply of rural physicians, not with their qualifications.

I had supposed that it was generally conceded that the scarcity of doctors in rural communities was already so great that many of the small towns are without doctors and that the number of such towns is rapidly increasing. Only recently, however, a physician said to me, "All this talk about the paucity of doctors is greatly exaggerated." He also added that the number of physicians in New Hampshire had increased in the last few years. Most of you will not agree with this statement.

In discussing the subject we may well divide it into three parts. First: Is there a scarcity of physicians? Second: How did this condition come about? Third: What can be done to relieve the situation?

First: It is a fact that the small towns of Vermont, New Hampshire and Northern New York are rapidly losing their physicians by the death of the older men and removal of the younger men to larger towns. I am not so familiar with conditions in the other New England States but I do know that several small towns in the States just mentioned have offered bonuses to young doctors to locate in them and have failed to secure anyone.

But the fact that so many small towns have already lost their doctors, and that most of them will soon be without doctors, is not so serious as is the one that the larger villages of 2,000 to 3,000 population are showing a decrease in the number of their doctors. Many of the small towns will never again have a resident physician. It is also worthy of note that most of the men in these larger towns are past fifty years of age and many are over sixty. Their years of practice are necessarily limited.

With the replacing of the horse and buggy by the automobile the physicians in the larger towns have been able to increase the radius of their practice and most small towns have not suffered for the lack of medical attention except at certain times in the winter. But, as these men advance in years and decrease in number, the small communities must certainly suffer, for it is becoming increasingly difficult to interest young men to locate even in the larger villages. Few have settled there in recent years and none are going to the small towns.

According to a recent survey of the medical situation of the country, there are approximately 147,000 physicians in the United States, of whom about 17,000 are 65 years of age or over. The interpretation made upon this survey is that there are sufficient physicians in the country but that the distribution is not equitably made. Undoubtedly this is true, but how can a proper distribution be effected? Few men will be induced to locate in small towns if they can earn a reasonable competence in large towns. Therefore the cities will always have plenty of doctors and the villages and towns will get them only as the cities become over-supplied.

Secondly: If we grant that there is a practical shortage of physicians in the country and that it is increasing, what brought about this condition?

As Dr. Painter has already stated, the medical profession has undergone a tremendous change in the last few years.

The increased educational requirements for admission to a medical school made the first cut in the number of students. Then the raising of standards within the medical schools and the classification of these schools greatly reduced the number of schools and consequently again cut the number of medical students and reduced the number of graduates.

In 1904 there were some over 28,000 medical

students in the 166 medical schools of the country and more than 5,700 men were graduated that year. This is the largest number ever graduated in one year. The smallest number of medical students in any year was just under 13,000 in 1919. The smallest number of graduates was in 1922 when only 2,529 men completed their medical course. The number of medical schools had fallen from 166 in 1904 to 81 in 1922. This tremendous reduction of medical graduates throughout twenty years would of course become more apparent as time advanced. With a continuous death rate among the older men and a steady increase in population, this reduction in the number of graduates has made its greatest impression upon the small rural town but is now affecting the larger villages.

There were in the country in 1926 only 79 medical colleges and only 61 of these were grade A colleges and gave the full four years' course. In spite of this, however, the number of medical students had increased to 18,840 and the graduates to 3,962. It is estimated by the Commission that by graduating from 4,000 to 4,800 men each year there will be 164,000 practicing physicians in the United States in 1962, and that the population will at that time be about 164,000,000, which would be one physician to every one thousand population. This is a rather long look into the future and will leave many untreated patients in the intervening years, for we cannot expect an even distribution of physicians so that each 1,000 people will have their physician.

This country is quite rapidly changing from a rural to an urban population. This is especially true in New England, so that while most cities will have more than their quota of one doctor to each thousand population, there will be many small towns of less than 1,000 population who will have no doctor. The economic situation is playing a large part in this and the young man, who has spent seven years of time and thousands of dollars to secure his education, is not interested to settle in a town of less than one thousand where the fees are necessarily small. He not only cannot earn sufficient means to rear a family satisfactorily, but, as one young man recently said, he cannot in such a community satisfactorily practice medicine as he has been taught to practice it. We have many inquiries asking aid in securing men to locate in towns which have never been without one or even two doctors and now have none. But it is impossible to give any encouragement in answer to these inquiries. As long as a doctor can earn a living in a large town he will not locate in a town where his income will be less than that of the average mechanic. But the few people who are still living in small communities must not be left to their own devices when they are sick, and this must be the case if the larger villages do not have their full quota of physicians. I am sure that we have not sent a dozen men into the small towns of Vermont in the last five years. In fact, scarcely that number have gone into the small and larger villages combined.

Third: It would seem as if the only solution to the problem was to increase the graduates in medicine and that this be done without delay. This necessity has been recognized and a plan of speeding up has been offered and, I think, approved by the Committee on Medical Education of the American Medical Association.

This plan consists of completing the work now being done in four years, in three. Instead of giving four years of thirty-two weeks each in separate calendar years, give forty-three weeks in each of three years. This plan does not appeal to me as a teacher. It would necessitate increasing the teaching force and that would be a difficult thing to do as it is hard to find men with teaching ability who are willing to work for salaries that are no larger than those of men teaching academic subjects. With the opportunities that are now open for practicing medicine and receiving a good income therefrom it is not easy to secure good men for full-time teaching positions. If they are to be kept teaching they must be paid more.

Many students also would find this arrangement a disadvantage, both educationally and economically. The brain can absorb new ideas only about so rapidly. It requires some time to correlate and digest the knowledge which it receives. Much teaching may be crowded into a small space of time, but that which comes more slowly tarries longer. A large number of men are dependent in part at least on their own efforts to pay their college expenses. The shortening of the vacation period would greatly handicap such men.

Some time might be saved in teaching by not requiring all teaching to be of the research method as is a rather common practice at present. Dr. Painter has very well stated that the majority of men are not by nature endowed with research ability. Most men can apply with some degree of success what others have discovered, but few are successful investigators. Investigation takes time even for those with a natural aptitude and training for such work. Some time might also be saved by limiting instruction to the essentials necessary for the practice of general medicine. There should be no effort to decrease the amount of medical knowledge necessary to make a good general practitioner, but the training and encouraging of large numbers of specialists should be discouraged. If a man desires to be a specialist he should be required to do post-graduate work and then be registered as qualified to practice his specialty.

I believe that the solution of the problem of increasing the number of regular practition-

ers, and of discouraging the increase of quacks and cults, is for medical schools located in large cities and having large endowments to increase their enrollment. There are several schools located in towns with ample clinical facilities and with millions of endowments that are limiting their classes to fifty or less. The per capita cost of educating these men is enormous. Do not these colleges have an obligation to the public to train a larger number of doctors as well as to conduct medical research? Many medical schools are working to capacity. If all of the sixty-one four year, grade A schools were doing so, the shortage of doctors in rural communities would soon be relieved.

PRESIDENT PARKER: Last year, in New Hampshire, a committee was appointed to investigate the distribution of physicians and medical education. This committee brought in a very comprehensive report on that subject. Dr. Wilkins acted as chairman of that committee, and I am going to ask him to read the report of that committee, submitted to the New Hampshire Medical Society.

Dr. George C. Wilkins read the report which follows:

## REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND DISTRIBUTION OF PHYSICIANS

### PURPOSE AND REASONS FOR COMMITTEE

REALIZING the gradual disappearance of physicians in the rural districts and the failure of recent graduates to enter the field of rural medicine, the House of Delegates of the New Hampshire Medical Society authorized this committee to make a study of the local situation, and to pursue whatever investigation they might choose in order to secure the necessary information with respect to the present situation and what may be expected in the future. The committee was instructed to embody the results of their investigations in a report to the New Hampshire Medical Society.

As the Dartmouth Medical School in the past has represented a source of supply of practicing physicians for the State, it was suggested to the House of Delegates that this committee consider what benefit the State of New Hampshire might anticipate from the reopening of the last two years of the school.

In the next decade the people of New Hampshire may awaken to a more deplorable condition than exists at the present time, and the organized medical profession should investigate now, be cognizant of facts, and endeavor to always be in a position to offer practical information which might aid in the solution of this difficult problem.

### PRESENT DISTRIBUTION OF RURAL PHYSICIANS

In 1923 a comprehensive survey of the supply and distribution of physicians in New Hampshire was presented to the New Hampshire Medical Society by a committee headed by Dr. Frederick P. Lord of Hanover. In this survey it was shown that:

> Of the 235 towns in New Hampshire 90 had no resident doctor. These 90 towns totaled a population of 41,155 inhabitants. The individual towns, however, averaged less than 500 population. Of the 90 towns without doctors 46 could reach medical care by travelling less than five miles.

In papers read before the medical society in 1921 and 1922, Dr. Lord discussed at length the situation at Dartmouth as well as the condition of medical practice throughout the State. He revealed a condition of affairs which merits study and further consideration. So thoroughly was the subject matter discussed from all angles by Dr. Lord, that the committee considered nothing could be gained by again covering the same ground. Those who are interested may study the papers and report in the published transactions of the New Hampshire Medical Society.

There has probably developed little change in the existing conditions during the past four years. The survey of Dr. William Allen Pusey in 1926, embracing as it did the entire country, demonstrates the same conditions existing in every State in the Union.

In 283 rural counties in 41 States the average age of physicians was found to be 52 years, and only 9% of the 4410 physicians practicing in these counties were graduates of the last ten years. A recently published table by Mayers and Harrison, shows that in 1906, 45% of recent graduates settled in towns of 2500 or less population, while in 1923, only 18% went to these smaller towns.

These figures demonstrate briefly but conclusively that the medical graduate of today does not look favorably upon small town or rural practice.

While it is true there are fewer graduates today than in 1906, the total number is still adequate to supply the needs of the country.

It is important to note that there is no organized effort on the part of the medical schools to aid in equalizing the distribution of physicians. The distribution from medical schools is inefficient and uneconomic and is dependent upon no method of coöperation nor upon the law of supply and demand.

Among the many reasons advanced for the urban drift, besides the general urban increase in population, are the reduction in the number of medical schools (166 to 79), the elevation of standards with lengthening of the course, increased cost of education, the tendency of schools

to disregard the preparation of students for general practice and overemphasis on research and specialties.

The lack of social life and educational facilities for children, combined with economic conditions which would make it difficult to make a competent living, are factors which influence the graduate to look away from the smaller communities toward the larger. Physicians trained under present hospital methods do not desire practice where these facilities are not available. With the common use of more rapid methods of transportation, the rural population avails itself more frequently of the services of physicians in nearby cities.

The well-to-do rural inhabitant, with the automobile and with good roads can obtain the services of physicians from the larger towns and cities. This condition is a potent factor in removing medical services from the less prosperous inhabitants of the rural districts, and medical service for this class is less easily available than formerly.

### CHANGE IN CONDITIONS

While realizing the dearth of physicians in rural communities we must also recognize the changing conditions that make fewer physicians necessary in these communities. It must be borne in mind, however, that our concern is not only with present conditions, but for conditions as they may be in twenty years, when the 50 and 60 year old physicians are no longer active.

The trend of medical practice is being altered by the enormous growth of knowledge regarding the prevention of disease, by the control of communicable diseases, and other public health activities, by more out-door life and better conditions of living, by better care of the eyes and teeth, by more rational feeding of babies, by the control of milk and water supplies and the disposal of sewage.

The growth of rapid methods of communication and transportation and the more recent tendency in this climate to keep main town roads and trunk lines open through the winter months, have widely increased the radius of individual practice.

A statute enacted by the legislature in 1925 enables towns to employ a physician. Since then five towns have offered financial inducements to a physician settling in the town, and three have obtained resident physicians in this way.

### RELATION OF DARTMOUTH MEDICAL SCHOOL TO RURAL PRACTICE

In the minds of some of the members of the committee it was deemed possible to so control a certain number of graduates of Dartmouth Medical School by subsidies, through scholarships or otherwise, that they would be bound by agreement to give from three to five years' service in some rural district determined by the Board of Registration in Medicine, or by the College authorities. In the small State of New Hampshire it might be possible, by controlling a few graduates of each year's class, to supply the rural districts especially needing such service. It has been argued by some that the existence of a medical school in New Hampshire would not increase the number of practitioners in New Hampshire. It seems logical to assume however, that with a medical school in the State, more men in New Hampshire will study medicine, and some of these men will naturally gravitate toward localities having tangible relation to the school. This was true of Dartmouth graduates throughout the years of its activity as a complete school. It is significant that since the elimination of the last two years at Dartmouth Medical School, the largest number of young men entering practice in the smaller towns of New Hampshire are graduates of the University of Vermont, a school comparable in many ways to Dartmouth, and the only remaining small medical school in New England.

It is to be understood that any consideration of reopening the last two years of Dartmouth Medical School would presuppose its being conducted and accepted as a Class A School.

Through contact with officials of Dartmouth College and Dartmouth Medical School and by correspondence with the Educational Boards with respect to medical education, the committee has been able to record the following facts, opinions and propositions:

The need for the development of an adequate medical personnel in Northern New England has become critical and urgent.

It is the purpose of Dartmouth College, both historically and in terms of the declared policy of the Trustees, to maintain the Medical School at its traditional high standard of efficiency and, when the requisite ways and means are made available, to give effect to the proposed restoration of the four-year course.

The desirability and feasibility of the project of resuming the four-year course, from the point of view of the Trustees, is mainly dependent upon the raising of the necessary funds without unduly interfering with the program for financing the principal work of the institution as an undergraduate college of liberal arts.

The teaching staff is loyal and interested.

The principal factor against establishing a four-year course is the lack of funds required for the erection of buildings, the equipment of the buildings, the enlargement of the hospital and the employment of full time teachers.

The desirability of having a four-year medical school located and administered as a unit in a single spot is deemed so obvious and peremptory that, while clinical material in Hanover may be limited to a certain degree, yet it can undoubtedly be extended to a point adequate for the proper intensive and thorough medical training of a four-year school, which would keep its

numbers not above a point at which it could efficiently train the natural quota of students coming to it, who would then have the opportunity to study medicine in this State, and who after graduation tend naturally to mitigate the present unsatisfactory condition of medical supply in this State.

The supply of clinical material in Hanover is limited but if the medical school is to be revived it will be in Hanover and the proposition of having part of the work in Manchester will probably not be looked upon favorably. On the other hand Manchester is the only community in the State providing over 250 hospital beds. It is also centrally located between Concord and Nashua, each with approximately 200 hospital beds.

The State of New Hampshire does not contribute to the support of Dartmouth College and this was discontinued at the request of the Trustees. In all probability a State appropriation for the upkeep or development of the medical school would not be refused by the Trustees.

It is perhaps due to the fact that Dartmouth College as a whole is so urgently in need of money that neither the Trustees nor the President feel that it would be fair to make active motions toward obtaining money for the smaller part of the institution. In all probability, if the funds for the reëstablishment of the medical school came from without, no obstacles would be put in the way of developing the medical school and it might be heartily welcomed.

The only hopes of funds for reopening the medical school are apparently from two sources: 1st, State appropriation; 2nd, endowment; because: the General Educational Board which is financed by the Rockefeller Foundation has in the past definitely adopted the policy of development of large medical centers in different parts of the United States and is committed to the upbuilding of these centers, and the possibility of this board contributing money for the support of a small school is very unlikely. During the last few years however, through the attitude of the profession, of the general public, and possibly by the Board itself, there has been a partial deviation of that policy toward a belief in the necessity for the development of smaller centers.

Dartmouth Medical School has been voted into the membership of the American Association of Medical Colleges and the investigator stated that Dartmouth is one of the best two year schools of medicine he had seen.

Inquiries directed to the Rockefeller Foundation and the General Educational Board produced nothing suggestive, instructive, or constructive. The Commission on Medical Education, whose problems have been more on a line with the investigation of this committee, had nothing to offer except perusal of their preliminary report, which is very thorough. Some of the statements in this report are taken from the report of this Commission.

RECOMMENDATIONS AND CONCLUSIONS

Further contact with the officials of Dartmouth Medical School and the Trustees of the College, and a suggestion from the New Hampshire Medical Society that they as a body stand ready to support any constructive policy decided upon by the College Trustees toward the reëstablishment of a four-year medical course, whenever in their judgment such action seems wise.

The State Board of Registration to notify yearly each eastern medical school, of all communities really desiring a resident physician.

Rural inhabitants must realize their own responsibilities toward the physician. The physician in a small community should be more loyally patronized by his neighbors, for he is probably as competent as the physician of the neighboring town. After the physician has rendered service he should be recompensed adequately and in accordance with present day standards of remuneration and not according to standards of fees of a quarter of a century ago, as is so often the case today. The fees charged by "old Dr. Smith or Dr. Jones," who began practice in the last century, cannot be proffered to the young, well educated and ambitious practitioner, as an inducement to enter country practice.

We believe that more consideration should be shown rural physicians by the physicians in neighboring cities. We believe it is detrimental to good feeling and injures the local physician in the eyes of his neighbors, when physicians from cities make house calls in smaller towns already provided with adequate medical service. Where towns have adequate medical service, city physicians will promote better ethical relations and better support from rural physicians by limiting their services in such towns to consultations only.

Physicians in rural communities are urged to encourage ambitious young men in their localities to study medicine, and to encourage them to return to their own localities to practice.

Communities desiring resident physicians should be prepared to guarantee adequate compensation and moral support. We recommend to town authorities that requests for resident physicians be conducted through the State Board of Registration.

The importance of this subject in its two aspects is so great that further progressive study will be necessary. The project of reopening the four-year medical school involves so many complicating factors that it will require thorough and exhaustive study before anything constructive can be brought forth. The final decision rests with the College Trustees.

We recommend this report be given publicity

throughout the State, by means of reprints and newspapers.

GEO. C. WILKINS, *Chairman*
LOUIS W. FLANDERS
FRED E. CLOW
H. O. SMITH
CHARLES DUNCAN

Adjournment for one hour.

### DISCUSSION ON MEDICAL EDUCATION AND DISTRIBUTION OF PHYSICIANS

DR. BLUMER: I have spent a good deal of time on this question, and two or three years ago attended an annual meeting of the Vermont Medical Society. I was very much struck by the absence of young men in the audience.

Regarding medical schools, I was executive officer of a medical school for ten years and was constantly receiving letters and requests for physicians, which I always brought to the attention of the students. I do not think that the dean of a medical school can influence a student very much as regards the place where he intends to practice. A recent graduate is not going to take advice unless he believes that it is in his own interests.

With regard to the limitation of classes, I can speak only for the Yale Medical School, whose policy of limitation was entirely dictated by the amount of available clinical material. The reason why the University of Michigan, although situated in a small town, is able to take larger classes, is because on account of arrangements with the State at large they are able to have a big clinic. I should think that some similar arrangement might be made in connection with Dartmouth. If the State of New Hampshire could be persuaded to erect various forms of institutions, such as a hospital for the insane, a tuberculosis hospital, etc., at Hanover.

A MEMBER: I am very much in favor of Dr. Painter's paper. I think some medical schools lay more stress on research than others. Most of them have a tendency, I know, to go into research. I am not inclined to sympathize with the idea of getting men to go into the country. I think it is unsound. We have placed the general material level on too high a plane. I think it might be possible to cut down the expense of premedical education, but, believing even that, I would not feel it ought to be done in all the University Medical Schools. We ought to have certain minimum requirements; there ought to be an opportunity for a man to develop as he might want to, to get to a definite plane.

DR. GILBERT: Maine is not particularly interested in the Medical School problem. In a matter of three or four years ago, we made a survey in Maine in towns requiring medical practitioners. Three towns in the list would guarantee $1500 income up to $15,000. That work is carried on by our Committee on Outside Relations in the Medical School. I have been very much interested in our talks today and it seems to me that if you consider matters of medical education that you will find the same conditions existing in many of the cities, and I think things are tending to a lower standard of Medical Education. I think if you take any of the states you will find the same thing is going on. In the smaller areas in Maine, two or three towns are without physicians; whether they are going to be supplied by the osteopaths or some of the other cults, I don't know.

DR. BROWN of Rhode Island: Gentlemen, I am afraid I am on foreign territory. We don't meet that proposition in my locality.

It strikes me at a previous meeting the Council was called upon and discussed this situation for the betterment of the association and the different states, and a question arose in my mind, that although they were interesting I don't know what we are going to do about medical education. I don't know that we are going to get ahead in the matter or be able to influence State legislation until we are more properly organized; I don't know what effect we are to have either on Medical Education or Distribution of Physicians throughout New England. It seems to me we are taking up the topic at random as a matter of academic discussion. Possibly we are going to pray for it. It is not going to influence our condition in any way. Possibly it might affect the attitude of reciprocity, if so we might have a more tangible thing to work upon throughout New England.

PRESIDENT PARKER: The idea was, that by a free and exhaustive discussion of this problem we might be able to arrive at some definite or semi-definite conclusions that might prove constructive, and serve as a working basis for our several State societies to better existing conditions.

In my address before the New Hampshire Medical Society I discussed the subject of distribution of physicians. I stated that it was a complex problem, and that I felt that its solution was in no small degree dependent upon a revision of our present theories of medical education. I have no sympathy for the fly-by-night school with its grist of half-educated graduates but I do believe that we must get away from the idea of turning out scientific specialists, exclusively, from highly developed and centralized schools, and evolve some plans for educating young men at a reasonable expense, well grounded in the fundamentals of the science of medicine, and trained clinically under men who know the art as well as the science of treating the sick.

I think this aspect of the problem is certainly worthy of consideration by a body of this kind, and that some practical and constructive ideas may be brought out.

I can, however, see Dr. Brown's standpoint.

It was, however, the hope of the Executive Committee that something tangible would develop from this discussion that could be taken back to the several States. If acceptable to these State Societies, New England could present a solid front on this question and would be in a position to command attention.

I believe that if this body had been in existence at the time Dartmouth was forced to curtail its medical department; if we had put up a solid protest to the American Medical Association Council, that this tragedy would not have happened.

DR. BROWN of Rhode Island: My understanding is that Dartmouth as a Medical College went out of existence in 1900, is that correct?

PRESIDENT PARKER: Oh no, it changed to a two-year course after 1914. I think the argument they advanced was, that there were not funds enough to carry on the academic work of the college and still increase the teaching faculty in the school. The Mary Hitchcock Hospital, in Hanover, N. H., has a clinic there, the limit of which is the size of the hospital.

DR. RICKER: I have been quite a bit interested in Medical Education. A number of years ago Dr. Painter and I were sitting in Chicago at a meeting on Medical Education discussed along the lines of the discussion today. Medical school teachers want to know what the feeling of the public and physicians is of the product; and if we can give to medical schools our perception of their product, I am sure that they will probably make use of it as they see fit.

As a medical student graduates from his school he lacks experience, no matter what school he attended. One time when in an infirmary Dr. Durgin and I discussed the student's contact with the patient. I made the remark that the student should come in contact with the patient, also that he should do so some time the first year in school. What does anatomy mean to the student? Mighty little. When a student dissects a heart, he should have the opportunity to listen to heart sounds and study the anatomy of the heart; same with the lungs, let him listen to the lung sounds. Don't leave it until he studies pathology. Give it to him when he is at the structure itself. There is only one thing that you are teaching the majority of the medical students, everything should be directed towards the living human body, and to the individual, mentally as well as physically. I feel that our schools have made a great mistake, that the student should come in contact with the living patients right off the bat. I think that then he would come out better than he does to-day. The majority of the students like to think of the practice of medicine as a profession, and there are different ways of looking at it,—but, at the same time, it is a business. As a matter of fact, the better type physicians do not practice medicine as a business; nevertheless, it is a business. When the shoe manufacturer brings out a line of shoes, he does not spend a great deal of time on the question of whether it is to be a high-priced shoe or a low-priced shoe. What he is after is to produce a shoe that will sell,—or, in other words, to produce a shoe that is wanted. Now, the practice of medicine is a fundamental process to the patient. The patient is going to have what he wants. The distribution of physicians, the education of physicians, the whole practice of medicine, ought to rest in the hands of the consumer, the person who receives the attention of the physician. We all remember the days of the general practitioner. As a matter of fact, our patients demand that the same kind of service applies to the young students coming out of school. People are buying and paying good prices for good surgery; buying and paying good prices for detailed examinations. I acknowledge that the control of infectious disease has cut off certain classes of work. The work of the students coming out today is far lifferent than what we faced when we graduated. The graduate of today is going to furnish the type of service which sells. That is nothing derogatory, in other words, it means the kind of work is regulated by the demand. The students are as alive to the situation as they can be, and will furnish the individual with the equipment that will meet the demand.

DR. LUCE: There are some features in this problem which seem to me quite beyond the control of organized medicine.

For instance, a week or so ago I took a clipping from a newspaper which carried a list of the candidates for the degree of M.D. in the graduating class of one of our large eastern universities. Of the forty-eight names in this list, there were thirty-nine which I doubt if many of you could pronounce correctly, much less spell them.

I don't mean to imply that these sons of our thrifty Hebrew and Greek citizens will not make good physicians, but I do feel sure, that both by inheritance and inclination they will tend to stay near the tall buildings, and that tall timber will have little or no attraction for them.

If you care to spend a little time in looking over the obituaries of our passing country practitioners, as they appear in our transactions, I think you will note that a very large majority of them came from the farm. Another thing you will notice is that most of them taught school during their pre-medical training. Our modern school system has taken the privilege of teaching school away from the country boy—but in the old days these earnest young men supplemented their courses in the country academy with this means of earning money to pay their expenses. These 17- or 18-year-old boys, of course, knew little or nothing of teaching methods but they knew the matter they had to teach,

which was everything from the A, B, C's up to Wentworth's Advanced Algebra, all in one room. Each had his own personality and all out-of-doors for its expression. Each was forced to lead a clean wholesome life and also to assume a dignity that would insure for him not only the respect of his pupils, but also the respect of others in the community. This Country School Master was rated as second only to the minister and frequently was called upon to consider important problems and his opinions on such matters carried weight. This boy was obliged to learn to do a very important thing and this was, *to think*. Perhaps some of you know of a better pre-medical training than this, but I am not at all sure that I do. These boys, as a rule, after being graduated from the academy and the medical school *went back* to some rural community among people they understood and where the people understood them, and lived useful lives. Many of them achieved prominence in their profession. To-day, as near as I can figure it, the cost of taking a boy from the grammar school into a medical practice is about $15,000. This, of course, excludes the farmer's boy. Evidently many of these boys with medical interests are taking the only course open to them, in going to Davenport, Iowa, for training within their means, and in many instances I am sure a loss to our profession results.

I mention these features simply as matters over which we have no control but which seem to me to be a part of the tendency of the times. The problem of the supply of physicians to the rural sections seems to me quite unsolvable. The present trend seems to be, that the district nurse will soon be the only refuge for the sick on Main Street. This with the Cottage Hospital in the larger villages is the answer, as I see it today.

DR. SULLIVAN: I have read of considering reducing the requirements of Medical Education, and have learned more about the subject this afternoon than I ever knew. I had not given it any special thought but there are some things which come to my mind.

You remember a few years ago the doctors found that their membership was slipping. They asked *Why*. They found that the clergymen were canvassing the rural communities and some of them started a school that would fit the poorer boys for the ministry, and they took them in, some of them having hardly a grammar school education. And what do you hear now? We hear from all sides that these men are doing religion more harm than good.

I don't want to go back to medicine as it was thirty years ago, when I went into it. I believe that the average nurse today is just as good a diagnostician as the average man was a few years ago. We always had typhoid this and typhoid that and no one had any idea of the remedies for diseases that afflicted the human body. If a patient had appendicitis, we had to send 50 or 100 miles for a surgeon to come to perform an operation; today, we can find in any community a man who can perform such an operation. We can find in the medical community of almost any town a man who can handle any disease and our boys are good diagnosticians. I hate to feel that the education of to-day has been for naught. These boys know what they want; they want the goods and want to deliver them. To-day the young man who goes into the rural district wants to get away from the drudgery of driving over the hills. I know what it is. I used to do it. I enjoyed it. The drudgery of the practice of medicine is what the young man wants to get rid of to-day. The experience of being called out to a home where there are domestic difficulties, some woman having an attack of hysteria because she is being overworked,—of course, he gets paid for that, and it is just as good as if he was in the city,—but he would like to handle a real problem in medicine and handle a good business proposition. He comes to the city and finds it there. A whole lot of that drudgery is there; he finds that the domestic difficulties are there, also financial difficulties. He cannot change the habits of some member of the family who was neglected, probably in childhood; but he can spend his time doing things which seem to him worth while. I think the most important thing for us to do is to keep up our standard. We have made a great deal of progress in the last ten years or more. I think we make an awful mistake if we lower the medical requirements of the present system. I believe, too, that the younger generation of business men will not stand for uneducated physicians. They know the science, and they want to do business with the doctor who knows that also.

SECRETARY BOWERS: I sympathize with what the gentleman who last spoke has said. I think it is desirable that we have practitioners who understand the problems of to-day. But I think we are not doing our duty if we leave the care of the sick to the chiropractor and the osteopath. The medical profession is distinctly at fault if it leaves the problems of humanity to people who are incompetent to deal with them. I think the medical profession should enter a protest against those people who are treating symptoms rather than conditions which are the result of pathological changes.

One particular gap in the system of medical education to-day is with the training of students who are dependent on the material furnished in the hospitals. Much of that material is in the final stages of disease, and, while they have good instruction, they may have lost the opportunity to study the diagnosis of a disease in its initial period. It is recognized by all educators that this gap exists, and students are not given a sufficient amount of instruction in those matters

concerning the initial condition of the patient. The average student needs to be brought in contact with disease in the home, as well as to be taught the problem of the advanced hospital cases. I believe that argument is sound to a certain degree, and I also believe that we have a responsibility in treating people at the very beginnings of disease, at the time when the treatment is of the greatest value.

In the work of the Board of Registration in Medicine it was the custom to ask students some of the ordinary questions like the technic of amputating fingers. Commonly some of the students would say, "I don't know how to cut off a finger, and don't intend to cut off fingers." The average man should know how to do the ordinary things, and the young practitioner should be particularly well-trained in obstetrics, in the diagnosis of diseases encountered in domiciliary practice and in minor surgery. In the diagnosis of tuberculosis for example there is a very definite lack of proper instruction according to some of the experts. When a graduate enters upon practice, the people may reasonably expect that the more common afflictions may receive skillful attention. This matter is pretty well recognized by educators as beyond them. In California, they tried to meet that condition by assigning students to practitioners and bringing them in contact with the beginning of those diseases concerning which they never had learned in medical colleges, and it was a most beneficial experience. We should recognize it as one gap in medical education to be bridged.

Dr. Stone: So many good points have been brought up here today that it is impossible to say enough without talking too long. Dr. Brown of Rhode Island has well said that we might confine our discussion to the tangible things. In Medical Education we are out of touch with our Legislators.

The two words which are the greatest curse to education today are *efficiency* and *standardization.*

As a result of continued agitation some of our colleges have given up medical education. We all know that a small medical school may turn out very excellent physicians. It is not clear why in connection with a medical school there must be a set minimum number of beds; why there must be a minimum number of out-patients; why there must be this and that requirement; why there should be arbitrary standardization. Of course we should have more Johns Hopkins hospitals but it is not plain why our hospitals must be completely standardized.

The arbitrary limitation in the number of medical students has put us distinctly out of sympathy with the public. In Boston many feel that there is abundant opportunity for the education of more students than are accepted by the schools today. Many feel that too much attention is given in the admission of medical students to what are called pre-medical studies. Many men are now excluded from medical schools because they have not taken enough courses devoted strictly to pre-medical scientific studies but have devoted more time to studies which might be expected to broaden their horizon. The question arises whether all our students should be poured through the same mold as a result of our attempts to standardize. It seems to me that the time has come for us to put ourselves on record as opposed to the dictation of one man upon methods of medical education and pre-medical education. We must do away with the over-standardization of everything connected with medical education.

President Parker: Dr. Balch has been a surgeon for a great many years. I would like to hear from him.

Dr. Balch: I have seen more or less of the Harvard Medical School because I have served for five years on the Overseers Committee to visit the medical school. I have seen some of the hardships mentioned by the previous speakers. The difficulty arises largely from the requirements of the A. M. A. and, of course, the school has to keep up to these standards. If a student has been one year at college and has not made up his mind concerning his future course, he must decide then if he wants to go into the medical school. A certain amount of chemistry is necessary and a certain amount of physics. A part of this was formerly done in the medical school itself but now it has been arranged so that it must be done before the student enters. When I was in college I took everything as far away from medicine as I could because I knew that I should never get the opportunity again. It is my personal feeling that it is very important that a man should take as few courses bearing directly on medicine while he is in college as he can and yet meet the requirements.

As for getting in contact with patients early in the medical course, that is something which is coming into the Harvard Medical School more and more. It gives a student an idea of what anatomy, pathology, etc., are all about. In reply to the criticism that a graduate did not know how to amputate a finger, I should say there was no excuse for a man who gets through the Harvard Medical School being unable to do minor surgical operations. I had the opportunity of looking up the surgical teaching in the school a few years ago. The instruction in minor surgery was excellent and there was much practical training under close supervision. The Harvard Medical School does not try to turn our specialists. They turn out men for general practice. If a man is going to become a specialist he has got to take extra years to get the required practice. That is the time to get it, after they have acquired a certain groundwork which

is needed for any medical practice. A few of them like to consider themselves specialists as soon as they get through, but they are not. Unless a student has had special surgical training, such as he can get in one of our larger hospitals as a surgical house officer or as assistant to some man who is doing a great deal of surgery, he should not do major surgery. If he does surgery at all, it should be minor surgery only.

As to bringing a man in contact with patients in the doctor's office, there are many practical difficulties, but I think it might be worked out. A man acquires a great deal in the handling of patients from years of practice. If a student can have the privilege of working more or less in contact with a man who has accumulated this wealth of experience, he will learn much that he cannot get in any other way.

DR. KENDALL EMERSON: It is my feeling that two or three months training for our pupil nurses with the District Nursing Society is an invaluable addition to their undergraduate experience. It gives them the practical experience of work in the home which they do not get in their technical hospital course.

In regard to the supply of doctors for the rural communities:—If we leave these fields to the osteopaths and chiropractors the public is obliged to take up with such practitioners for want of better. But I believe the public has a tremendous desire for the right thing and it is a part of our work, and should be a pleasant part, to teach the people what is good for them. The Public Health Department has always had this to do and we have an excellent opportunity to help in this educational work. Although doctors may not be persuaded to live in the smaller communities, the matter of good roads which has been referred to works both ways. If the country dweller can use the roads to get to the larger town for medical advice, so the doctor with his automobile can cover a very much larger territory than formerly and in relatively shorter time.

DR. PARKER, President: It seems to me that this is a very vital, business problem for us. We cannot afford to ignore the rural districts. I think we can well compare our profession with a tree. The trunk and the branches cannot be healthy and grow without the leaves. The rural practitioner is the leaf of our tree.

DR. TWITCHELL: Mr. President, we have already had all the suggestions that we can digest, and I feel more than I can apply. The time is late, and I don't think we can do any more than educate the public as to what they need and work for appropriate legislation. It might be pertinent to talk to legislators and the people might be shown what they need.

DR. HYATT: Up very near the Canada line I taught school in New York State before I went to college. I went into this standardized examination, and I flunked. Somebody has said something about ignoring our present day educational requirements and objects to standardization. I think what we want to do is to make our requirements higher, better, different. This young man, who majored in history had a better foundation than he who confined his study to pure science in pre-medical work. The preliminary education simply prepares the mind. A mind adapted to literature, history, etc., is much better for studying them, better equipped for whatever might follow, and is better prepared for the practice of medicine.

DR. WILLIAMS: I have nothing to add to the words of those who have spoken so ably.

DR. ELLINGWOOD: One or two things I want to mention,—the methods of handling of patients and the list of candidates for the degree of M.D. appearing in a recent newspaper whose names nobody can pronounce correctly, much less spell. These are serious problems as Dr. Luce said. It does not matter whether the candidate is a practitioner, or salesman, he must know something about practicing medicine, and salesmanship, whatever that may be. In the matter of medical education, when we turn the patient over to the osteopaths and chiropractors, they study medicine as it was taught generations ago. Their pre-medical education is perhaps not as good as ours. It is supposed to be the same as it was with us many years ago. Men are spending more intensive study on science in their medical colleges. I think it might be well for us to study diplomacy. When we commence to educate the public, they turn around and say —"You went to Johns Hopkins, what did you learn?" Somebody else went to Harvard, and they learned what was taught there. The osteopath and the chiropractor under this system make definite diagnoses, so do we. Sometimes we make it too early and we have to change it. The osteopath and the chiropractor call it something, and perhaps they impress the patient that whatever they say is right. The patient does a lot of thinking and talking. These Federated Clubs, as Mrs. McReynolds told us this morning, can carry news very fast. Until we can have confidence in our own men, we cannot have confidence in the people.

PRESIDENT PARKER: Now, the object of this body is constructive. This subject to me seems a large and complex one. Is it fair to draw up a definite resolution, or would it be better to select a committee from the different states to go over the information brought out to-day at a later time, to work on it at some future meeting?

*Motion,* that definite recommendations be made at the next meeting of the Executive Committee.

PRESIDENT PARKER: As a member of the Executive Committee, I would prefer to appoint a separate committee of one man from each state,

a man who is particularly fitted for that, to take it up and bring in a recommendation. I am at your service. Do whatever you prefer. We have Dr. Wilkins, who knows about it,—Dr. Brown, connected with the hospital and school. We have other men equally conversant, and I think they would probably be very willing.

*Amendment.* That the Chair appoint a committee at its discretion.

DR. PARKER, President: I am at your service.

*Amended Motion.* That the Chair appoint a committee to go over this data and investigate the subject further and bring everything in for possible concrete conclusion for action at the next meeting.

Seconded. Unanimously carried.

DR. BROWN of Rhode Island: We should decide, I think, before we adjourn, on the subject for discussion at the next meeting.

PRESIDENT PARKER: What subject do you wish to take up for discussion at the next meeting? What do you consider to be the most important, practically a burning question, to take up at the next meeting?

MEMBER: I think Reciprocity. I think it is a live matter of interest to this body. I think it would be a fine thing to thrash out, through our different societies, legislative bodies, Boards of Health, and other institutions, and see what we can make of it.

PRESIDENT PARKER: Would you advocate legislative requirements? I would very much like your ideas.

DR. BOWERS: Reciprocity would be a very interesting subject. You would get everybody interested in the way in which you decide to handle it. I think perhaps you would get more expression of definite interest on that subject than any other that you might take up because of considerable difficulty in the problems involved.

DR. RICKER: That would mean definite requirements, medical licensure and so on.

Dr. Wheeler and Dr. Brown both approved of this suggestion.

PRESIDENT PARKER: The Executive Committee will meet and try to arrange the program. I would like to have each state appoint someone conversant with the requirements in that state, so that we can find out the status of the matter.

When do you wish to meet again? The Constitution says, semi-annual meetings. It occurs to me we might be able to have the meeting in the fall.

Discussion regarding place of meeting.

*A motion* was submitted that the meeting take place the latter part of October or the first part of November, in Boston.

Seconded. Carried.

PRESIDENT PARKER: The Finance Committee wants to report.

SECRETARY: You have already allowed me to issue a call for funds.

Discussion as to details of financing the expenses of the Council followed:

PRESIDENT PARKER: I recommend that a definite sum from the different states be deposited with the Treasurer to meet current expenses. I think it could be arranged so that a definite sum could be deposited with the Treasurer immediately and then vouchers rendered back to the State Treasurer for expenses; this would facilitate matters.

*Motion:* That the financial arrangements be left with the Secretary-Treasurer.

Seconded. Carried.

Motion to adjourn.

## AWARD TO DR. HRDLICKA

THE highest award Great Britain has to give for research in anthropology has been made to a member of the staff of the Smithsonian Institution, according to an announcement made by the Institution on October 1. It goes to Dr. Ales Hrdlicka, the statement said, for his "great service to anthropological science, not merely in America, but throughout the scientific world."

Only once before has it gone to an American, and that was in 1908, when it was given to Prof. William Z. Ripley, of Harvard. The announcement, in full text follows:

Dr. Ales Hrdlicka, anthropologist of the Smithsonian Institution, sails today for Europe in order to receive personally the Huxley Memorial Medal of the Royal Anthropological Society. The presentation will take place in London on November 8, and as is customary, the medalist will deliver the Huxley lecture on that date.

Dr. Hrdlicka will spend the time before November 8 in a survey of recent achievements in physical anthropology in France, Northern Italy, Belgium, Germany, Czechoslovakia and England. Though he says there have been no great discoveries made since he last visited Europe in 1925, he feels it important to keep in close touch with fellow workers in his science.

Dr. Hrdlicka also intends to examine the original remains of early man preserved in such comparatively sequestered museums as those of Monaco and Mentone. In England he will revisit the site of the discovery of the Piltdown skull and also sites where the still problematic "Tertiary" man has been unearthed. He is to return November 18 on the Berengaria.—*U. S. Daily.*

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

## CASE 13421

## A CASE OF COMA

### MEDICAL DEPARTMENT

A married New England woman fifty-eight years old entered June 7 confused and semicomatose. She was in such extreme condition that she could give no history. The following brief account was given by her son and husband.

For five months she had been in bed most of the time because of dyspnea, swelling of the ankles and precordial distress. She improved, and a month before admission was up and dressed. Then she had an attack of nausea, vomiting and diarrhea believed to be brought on by some soup. After this her previous symptoms were much worse. She had steadily gone downhill.

Her past history was negative. She had no history of rheumatism, and had never been ill in bed before.

Clinical examination showed an emaciated little old woman lying propped up in bed, cyanotic and in respiratory distress. The lungs were examined without the patient sitting up, as she was too ill. There was slight dullness at the right base with moist râles to the midscapula. The heart was enlarged. The apex impulse was seen and felt 11 centimeters to the left of midsternum. Left border of dullness 10.5 centimeters to the left of midsternum, 3 centimeters outside the midclavicular line, right border 3 centimeters to the right, supracardiac dullness 5 centimeters. The pulse was 153 at the apex, about 84 at the radials. The action was too rapid and too feeble for the determination of murmurs. The pulmonic second sound was accentuated. The heart was fibrillating. The artery walls were normal. The blood pressure was 125/85. An electrocardiogram showed auricular fibrillation, rate 150, diphasic $T_2$, intraventricular block. The liver dullness extended 3 fingerbreadths below the costal margin. The edge was not felt. There was epigastric tenderness to moderate palpation. The right leg and ankle showed edema from the knee down. There was no edema of the left leg. The pupils were equal, regular, contracted by morphine. The kneejerks, ankle-jerks and Romberg were not done. There was no clonus.

The urine was not recorded. Blood examination at entrance showed 11,800 leucocytes, 82 per cent. polynuclears, hemoglobin 80 per cent., reds 5,450,000, slight achromia, reds normal in size and shape, many basophils. Wassermann negative. Non-protein nitrogen 110. Icterus index 15. June 8 the reds showed moderate achromia and variation in size and shape. Occasional diffuse basophilic cells and normoblasts. Platelets normal or reduced. Polynuclears 81 per cent.

*Orders.* June 7. Rest in Gatch bed. Fluids to 1500 cubic centimeters. Digifolin 3 grains intramuscularly and 3 grains by mouth at once, then a grain and a half every three hours for seven doses unless the patient is nauseated or the pulse falls below 70; then a grain and a half daily. Morphia 1/6 grain s.c. every four hours by the clock unless the respiratory rate falls below 12. Soft solid diet. To be fed. Apex and radial pulse. June 8. Morphia 1/6 grain at 12.45 a. m. and 4 p. m. Caffein sodium salicylate 10 grains.

June 8 Dr. Paul D. White wrote: "The recent vomiting of blood suggests gastric disease, but her present confused semicomatose state prevents accurate study."

That day the patient died.

### DISCUSSION

BY RICHARD C. CABOT, M.D.

#### NOTES ON THE HISTORY

Experience here for a good many years has shown me that we are more likely to go wrong, our percentage of bad results is always higher, in cases that start off like this one. This result shows that a history as we get it under fairly satisfactory conditions is a very important part of our diagnostic success. Where we do not get it, as in cases like this where the history is given by persons whose knowledge and whose sympathy is often very limited, we go wrong in a much larger percentage than we do in other cases.

It is always worth noticing how prone not only the laity but many members of our profession are to believe the old idea that dietetic errors often cause disease. People must have a cause for everything; if they cannot find a good cause they take a bad one; and the simplest explanation is to remember that one has eaten something some time that might have upset the system. Looking back over our experience on the necropsy table, with full knowledge, we very seldom find anybody who has turned out right in his belief that he got into trouble by something eaten. Of course, when a number of people eat the same thing and are all taken in the same way, especially when the article eaten is canned goods or shellfish, that may really cause trouble. But the usual record is that some one person eating a meal that other persons have eaten without any harm, and a meal that did not contain any dangerous substances, is then supposed sick because

of this meal. For instance we sometimes find a tabes dorsalis dating from a particular time when the patient has eaten canned corn. When we thought that diet had a great deal more to do with typhoid than we do now, when we saw a relapse beginning we began to cross-question the patient to prove that some visitor had brought in some fruit or some awful substance, and then we said, "Of course—you see." Today I do not suppose anybody would believe that relapse of typhoid can be affected by any diet whatever. So I do not suppose that anybody here believes that this soup—as harmless a substance as we can name—had anything to do with this illness.

The suggestions with which we come to the physical examination here are of cardiac disease or possibly renal disease. We cannot always tell them apart from their symptoms. And as the patient is fifty-eight, we ask, what is the commonest kind of cardiac disease at this age? Then we have to say hypertensive, probably not rheumatic and not syphilitic. So we are looking then for cardiac disease of the hypertensive type.

### NOTES ON THE PHYSICAL EXAMINATION

It was not thought best to move this patient. This is the most unfortunate way to examine the lungs, because with the patient lying on her back we cannot get under her even with a Bowles stethoscope, and if she lies on one side we cannot compare it with the other side because in this position everything is thrown out; the breathing is altogether different from what it is on the other side.

In the percussion measurements I think we have good evidence of an enlarged heart.

There is a pulse deficit of nearly fifty.

Blood pressure measurements in a fibrillating heart I do not believe are of much use. We have to select some one bit, the big, the middle-sized or the little waves, and it is very unsatisfactory.

Intraventricular block is a good deal the most important of the electrocardiograph findings.

When we have, in a case that looks like a cardiac case, edema of one leg only, and the patient is not lying on that side, what ought we to conclude?

A PHYSICIAN: Sclerosis, more marked in the left leg?

DR. CABOT: That is conceivable. What else?

A PHYSICIAN: Some obstruction in the venous return.

DR. CABOT: What two obstructions should we think of?

A PHYSICIAN: There might be a thrombus.

DR. CABOT: Yes, and the other is varicose veins. I think it will turn out to be one or the other, if we have proper opportunities for investigating.

I do not believe we lose much from the lacking facts. There is nothing to suggest any disease of the nervous system.

It is a pity that the urine is not recorded, because we really need that.

Just why there are basophilic cells and normoblasts, which is contrary to the rest of the blood picture, I don't know.

The non-protein nitrogen is high.

No obvious jaundice is recorded, so it must have been slight.

We certainly seem to have something that has called upon the bone marrow for extra work so that the young cells are coming out.

We had not heard before of the vomiting of blood. Dr. White brought that out with a better history.

### DIFFERENTIAL DIAGNOSIS

What have we? Let us start with the things we are surest of and proceed from that point.

I should say from the physical examination confirmed by the history we ought to find an enlarged heart. The history so far as we could get it was of cardiac disease, and probably, at her age, a hypertensive type, which almost always goes with an enlarged heart.

Is there evidence of any valve lesion? I do not see it. Of course we are not examining her under the conditions in which we should be most capable of making sure. She is at the point of death, the heart is feeble and rapid. But at her age a valve lesion is rather uncommon as an important event in the case, especially as she does not seem to have been sick for more than five months.

DR. MALLORY: One of the internes was very sure he heard a presystolic roll, not confirmed by other observers.

DR. CABOT: Thank you for the additional information. Suppose it had been confirmed. We know that presystolic murmurs in enlarged hearts mean all kinds of other things besides mitral stenosis, and that she is not very likely to have got to fifty-eight with mitral stenosis and no obvious symptoms. Still it is perfectly possible that she has it. But any big heart, not merely the heart that Flint and Osler described as going with the Flint murmur, can produce a presystolic at the apex. So I do not think we can say any more than we could before about valve lesions. Then, of course, Dr. Paul White did not hear it, and we have to get up very early in the morning to hear a murmur that Dr. White can't hear.

We have every reason to suppose passive congestion from the history and from the examination of the right lung, although it is apparently not very marked, because we do not hear anything about it in the abdomen and it is only in one extremity.

As to that extremity, I believe, as was said, that interference with the venous return either high up in one of the vessels in the pelvis or in the leg itself, or varicose veins, is the cause of edema.

We have a high non-protein nitrogen. What shall we conclude from that? We really cannot conclude much, because we have so little other

evidence about the urine. It is consistent with a chronic nephritis, but we do not have to suppose chronic nephritis on that test alone, with one reading and no other knowledge of the urine. At her age, with the kind of cardiac mischief that we suspect, general arteriosclerosis is very common, and probably would include the kidney, whether in a grade we call nephritis or in a milder grade.

She has a suggestion of anemia, not an actual anemia but an increased call on the marrow for red cells. Of course we get that with chronic nephritis. That strengthens a little the rather weak evidence going towards a diagnosis of chronic nephritis. Other than that I cannot see any reason for it.

Intraventricular block can be due to definite lesions in the ventricle or can be present without any discoverable lesions, from causes at present unknown. It points to the same thing that we have every evidence of, and that is of incompetent ventricle. I think that is as far as I can go on the evidence presented.

I think Dr. Mallory will find arteriosclerosis. That is a pretty safe guess on anybody of fifty-eight, especially if he has cardiac symptoms; whether it will be extensive or not I have no way of knowing. I think he will find an enlarged heart. I guess that the heart will not show valve lesions. I guess that the kidneys will not show extensive nephritis or anything that we can be sure is nephritis, but it is a fair gamble that there will be arteriosclerosis enough to account for the 110 non-protein nitrogen.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Auricular fibrillation.
Heart disease, type?
Cardiac decompensation.

DR. RICHARD C. CABOT'S DIAGNOSIS

Hypertensive heart disease.
Arteriosclerosis.
Arteriosclerotic kidneys.
Hypertrophy and dilatation of the heart.
Thrombosis or varicose veins.

ANATOMIC DIAGNOSES

1. *Primary fatal lesion.*

Rheumatic heart disease, mitral stenosis.

2. *Secondary or terminal lesions.*

Chronic passive congestion.
Infarcts of the lungs.

3. *Historical landmarks.*

Chronic cholecystitis and cholelithiasis.

DR. MALLORY: The heart as anticipated was enlarged, weighing 420 grams. This was not due to hypertensive heart disease, however, but to mitral stenosis. There was a quite definite stenosis. Before opening the valve it would barely admit the tip of the finger. The valve flaps were very much thickened with fibrosis and marked calcification. The right ventricle naturally was enlarged, being behind the stenosed valve. The left ventricle was approximately normal in size. The other valves were negative.

The coronary arteries were negative and the musculature appeared to be in very good condition. The aorta showed a slight degree of arteriosclerosis.

Next to the heart the most striking condition was numerous infarcts in the lower lobe of the right lung, and it rather suggests that the history was at fault here, that probably the blood mentioned was coughed up rather than vomited. There were no thrombi in the heart itself, and we have no definite explanation of the source of the infarcts in the lung. The leg-veins were not examined, unfortunately. It is quite possible that, as Dr. Cabot suggested, there was a phlebitis and that the clot broke loose from there to give us the infarcts in the lung. They at least suggest that possibility.

The liver showed a very extreme degree of passive congestion, with very marked disappearance of the liver cells which occurs in these cases. I estimated roughly only about one-fifth of the liver cells were left; almost four-fifths of the entire liver was composed of blood cells and secondary fibrosis, secondary to the necrosis.

DR. CABOT: Was it manifest on the surface at all?

DR. MALLORY: Very slightly. Sometimes one gets a mild degree of cirrhosis under these circumstances, but it was not the case here.

The spleen showed chronic passive congestion and so did the kidneys. They showed a very slight degree of arteriosclerosis, but I think nothing that could have caused symptoms.

DR. CABOT: We should pin in our memory three facts: (1) that a woman can come to fifty-eight without anyone in the family suspecting a fair degree of mitral stenosis; (2) that we can have 110 non-protein nitrogen with essentially normal kidneys; (3) that the lack of a good history often balks diagnosis.

## CASE 13422

## A RECURRENT DISABLING DERMATITIS OF THE ARMS AND FACE

DERMATOLOGICAL DEPARTMENT

A white carpenter sixty-seven years old was referred to Ward G from the Out-Patient Department with a red, itching, thickened eruption of the face and arms of seven weeks' duration.

Thirteen or fourteen years ago while working in a mercerizing mill he was exposed to caustic potash when working on an old machine. The night after this exposure his face began to swell, itch, and later ooze. A day later his arms be-

gan the same process. The condition extended and became worse and he was unable to work for five or six weeks.

A year later, following a sprain of his right ankle, the skin became red and swollen, with a little oozing of serum. A similar condition appeared on his face and arms. He was still working in a cotton mill with the same exposure as before. This time he was out of work for four weeks. A short time after this last attack, after a day's work in the garden, his face and hands swelled and itched. He was disabled for one week at this time.

Eleven years ago he changed his job. He became a millwright in another factory, and for five years was comparatively free from any eruption save for an occasional day or two of itching when he was working about steam or when his skin was subjected to unusual mechanical irritation. Six years ago he began his present job as a general carpenter in print works for cotton goods.

Four years ago he had another attack involving face, arms, and neck and was treated in the Out-Patient Department. He was out of work for a week, but the irritation persisted much longer.

Two years ago itching, redness and oozing developed in the same areas following exposure to air at 245°, but he kept on with his work. His present attack beginning seven weeks ago commenced with itching and burning two hours after working at a lathe on parts from a caustic machine. He had tried to keep away from this particular work knowing that his skin was sensitive, but at this time the man who did the work on these machines was away on his vacation.

The patient had given up work three weeks before and had been under the care of a local physician, but the skin condition was still extending rather than improving.

*Examination.* The skin of face, neck, upper chest and arms was dull red in color, rough, thick and scaly, with numerous punctate crusts and many excoriations. In places the skin was almost leathery in appearance. Over the lower abdomen, upper buttocks, lumbar and sacral regions was a fine vesicular eruption. The vesicles in many places were replaced by tiny crusts, and many had a slightly inflammatory base. Four fingers of the right hand were missing as a result of contact with a buzz saw ten years ago. His general examination was negative with the exception of very bad teeth with considerable pyorrhea.

*Laboratory examination.* Blood pressure 148/72. Two urine examinations negative. Blood: 5,000,000 red cells; 10,600 white cells. Hemoglobin 75 per cent. Differential count: Polynuclears 57; lymphocytes 19; large lymphocytes 10; eosinophiles 13; basophiles 1. Blood sugar 93 milligrams. Blood Wassermann strongly positive.

In view of the positive Wassermann the history and examination were reviewed. He had been married twice, but neither wife had had any miscarriage or stillborn child. A gonorrheal infection was admitted at twenty-five years which persisted for a year and a half, untreated, but there was no history of primary or secondary syphilis. His reflexes, heart, tongue and throat were normal and there were no scars suggestive of lues found.

*Subsequent history.* The patient remained on Ward G for eleven days. With soothing local applications the itching gradually disappeared, the redness faded and the skin became smoother. The thickening of the skin tended to persist. He was discharged to the Out-Patient Department much relieved.

## Discussion

### by C. Guy Lane, M.D.

### Comment on History

The first attack seems without question to be an acute dermatitis from contact with potash. He had apparently gone back to the same job without difficulty. In the second attack starting on his leg it is probable that some local application or adhesive plaster or heat precipitated the irritation of the skin. The irritation following exposure to plants illustrates the fact that often an acute dermatitis will render the skin more susceptible to other agents as well as to the original agent. It is worth noting that he was free from attacks while working at another job, though the history does not state what his contacts were. It would be interesting to know the antecedents of the attack four years ago.

When we get to the present attack it is found that the patient's skin has been stirred up by potash, by plants, by heat (moist and dry), by mechanical irritation, and possibly by other agents, and that he has had to stop work three times because of his skin. These facts would be of use to an employment manager or an industrial physician if the man applied for a job elsewhere.

He apparently realized the limitations of his skin, for he had tried to keep away from any material which might contain caustic. It is easy to see the connection in the last attack between lathe, caustic, dust and a sensitized skin such as this patient had.

While this story is rather clear-cut in the relationship between the job and the disability, it is well to emphasize the need for a careful history both of the disease and the work in cases suspected of being occupational.

### Comment on the Examination

Word pictures of skin conditions often do not convey the correct impression. Unless one is

seeing such conditions frequently one hasn't the standards to enable the actual conditions to be correctly visualized. The actual photograph would convey far more than any words.

He evidently has two types of eruption, the severe disabling one of neck, face and arms, and a milder condition of the body.

The positive Wassermann was a surprise. A careful review of history and examination failed to give any additional evidence of syphilis. I believe that the United States Army requirements for the diagnosis of syphilis are excellent —two manifestations before recording the diagnosis.

The eosinophiles are not infrequently high in skin disease of this type.

In most eruptions limited to arms, hands and face the occupational factor should be investigated, especially if the eruption is a dermatitis or eczema. Not only must a diagnosis of the type of skin disease present be made, but with our compensation acts an economic diagnosis must be made, i. e., it must be determined whether the condition is due to occupation or not.

In arriving at a diagnosis in these cases one often has to approach them in rather a critical spirit, looking for manifestations of non-industrial skin disease, possibly for evidences of self-infliction, for evidence of treatment, asking if the lesions are consistent with history of exposures, etc. Here the lesions are consistent with the history and we are justified in a diagnosis of subacute dermatitis, probably from alkali used as mordant in the print works. Carpenters are more apt to suffer from wood dusts or paint, and it is possible that the kind of wood he worked upon may be the factor rather than the alkali. The other type of eruption probably includes the few stray single or grouped papules or vesicles which often spring up outside the originally involved area. The same thing occurs in the ordinary eruptions of poison ivy.

As far as the positive Wassermann is concerned, the record states that he was told of it and probably was treated by his local physician. In my opinion the diagnosis of syphilis is not warranted by the evidence furnished by a single positive Wassermann, and further evidence should be sought at least by blood Wassermanns and probably by lumbar puncture before advising further treatment.

DR. YOUNG: How are you going to treat him in the future? Are you going to make him change his job?

DR. LANE: Not necessarily. The phrase "change his job" has two distinct meanings. One is the usually accepted meaning of putting the man on another job. The other is to alter his job—his working conditions or his technique. This I believe should be tried first as an economic expedient so that he can remain at work at the same pay. As a matter of fact this particular patient knows that he is sensitive to the alkali, has tried to keep away from it, and has succeeded very well in the five years in which he has been at the print works. With this knowledge and by keeping away from contact with the caustic I think that he will get along very well.

DR. YOUNG: There is no way of toughening the skin for him?

DR. LANE: No.

DR. CABOT: A rather similar case was that of Dr. J. H. Wright, whose skin used to be very sensitive to formalin. He did not change his job, but was very careful to keep from contact with formalin.

DIAGNOSIS

Industrial dermatosis—subacute dermatitis in a carpenter and probably due to alkali.

## MORTALITY STATISTICS, 1924. TWENTY-FIFTH ANNUAL REPORT, DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS. UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON, 1927, 41

THE number of deaths credited to syphilis in 1924 was 8,195, corresponding to a rate of 8.3 per 100,000 estimated population, against 7,695 deaths in 1923 and a rate of 7.9. Death rates from syphilis, tabes dorsalis, and general paralysis of the insane are given in a table accompanying the report, for the years 1900 to 1924, inclusive. The number of deaths credited to tabes dorsalis for the year 1924 was 1,674 and for general paralysis of the insane, 6,379. The death rate per 100,000 estimated population during the same year for tabes dorsalis was 1.7 and for general paralysis of the insane, 6.4—*Veneral Disease Information, U. S. P. H. S.*

## THE EFFECTS OF TEMPERATURE ON THE VIABILITY OF THE GONOCOCCUS

SCHOFIELD (*J. Urology*, Baltimore, 1927 XVII, 581) reports as follows:

Experiments were made to determine the effects of temperature on the gonococcus. It was found that fresh pus cultures resist a temperature of 43° C., and in some cases 44° C., for a period of 30 minutes. The cultures did not resist a temperature of 45° C. when exposed for the same length of time. Subcultures, however, will withstand such exposure, but are destroyed when exposed to a temperature of 46° C. for 30 minutes.

Fresh pus cultures are viable after 24 hours at room temperature and in most cases positive growth results can be obtained after exposure at room temperature for 72 hours. Subcultures are viable under such conditions.

Ice-box temperature for a period of 24 hours did not inhibit the growth of either fresh pus cultures or subcultures of the gonococcus. Both were destroyed by 48 hours' exposure to ice-box temperature.—*Venereal Disease Information, U. S. P. H. S.*

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## FRANCIS W. PEABODY

HOWEVER one strives for consolation, when a fine high spirit is taken there is something gone that cannot be replaced. The loss to American medicine in the death of Francis Peabody is too obvious to be discussed. He died in the full strength of youth—when the world needed him. The work he had accomplished, which placed him in the front rank of his contemporaries, was but the first unfolding of his power.

Others, no doubt, will take up his tasks where he left them and carry them forward in the paths he pointed out. But however able and worthy, others cannot replace him in the hearts of those who felt his influence. Great in wisdom, he was tolerant; strong, he was patient of weakness; rich in gifts and honors, he was without pride. A learned master of modern science, he understood, as well, the ancient wisdom of that first compassionate physician of mankind in whose footsteps he followed. The grief of those who worked with him in Boston is tempered only by the pride they take in him.

Those who are remembered are not dead. And Francis Peabody will be alive among us as long as there are left colleagues who learned from him not only how to live but how to die; pupils who saw through him the promise of a worthy life; patients who gained from him hope or a noble acquiescence.

And all who knew him and admired him without envy will go back to their tasks inspired by the memory of him—who was so wise, so gentle and so brave.

## FACTORS IN MEDICAL PROGRESS

MEDICAL progress consists of a series of advances in knowledge, each advance lifting the general level of culture to a greater height. These innovations have one feature in common —they are received with scepticism, and have to overcome a decided opposition before they are accepted as sound. It is undoubtedly salutary that this is so, for unless a new idea has sufficient worth to outride the storm of opposition, it had better sink.

A study of the social factors involved in medical progress has been made by Bernhard J. Stern,* and is published as one of the Columbia Studies in History, Economics and Public Law. Stern analyzes the factors which retard the diffusion of a new idea; among these one of the most important is "vested interest." This may be economic or intellectual; in the latter instance the old idea is endowed with an "emotional tone" which holds people loyal to it, and hostile to any change. The "power of tradition," another factor, "implies the social attitude that the customary ways of doing things are better in spite of all their failings because they have been tried, while there may be unknown dangers lurking in the new procedure." Reverence for authority keeps many people from believing in the new idea. The fact that some savant in whose judgment they have confidence pronounces against the innovation leads them to condemn it also.

The psychological factor of habit strengthens the power of tradition. Driven by these factors, the opposition uses forms of social pressure to induce the adventurous ones to conform to the existing social pattern. Social pressure may take the form of ignoring the new work, and of sneering at or ridiculing the innovator as well as the innovation.

Even without marked opposition, the diffusion of a new idea is slow. It may be buried in the special journals, or may languish because of lack of promotion. It may conflict with religion or political ideals, as was the case with vaccination. At first certain people believed that the artificial prevention of smallpox was an interference with the will of God. Lastly, the personality of the proponent of the new idea may arouse antagonism and so hinder the acceptance of the doctrine.

*Social Factors in Medical Progress, by Bernhard J. Stern, Ph.D. Columbia University Press, 1927.

Having thus analyzed the factors which prevent the acceptance and diffusion of a new idea, Stern proceeds to review the history of eight epochal medical discoveries from the standpoint of the opposition which they encountered. Dissection of the human body, Harvey's theory of the circulation of the blood, Auenbrugger's theory of percussion, vaccination, the theories of Holmes and Semmelweis regarding puerperal fever, the discoveries of Pasteur, the doctrine of antisepsis and that of asepsis are selected as typical instances of truly progressive ideas which encountered the severe opposition of the conservatives. Against all of these, the factors of opposition as enumerated above were active although to varying degrees.

In the second part of Stern's book, which deals with the nature of medical progress, the author discusses the question whether progress depends upon the work of a few individuals, or whether the great discoveries would have been made anyway. He holds the latter opinion, and in support of it he shows that the great discoveries were the outgrowth of knowledge accumulated by many workers. In further proof, he appends a long list of multiple inventions and discoveries. For example, the cellular basis of animal and plant tissue was discovered in 1824 by Dutrochet, of Paris; between the years 1836 and 1839, seven other investigators in various European cities described the same fact. The agglutination of typhoid fever was discovered in 1896 by Greenbaum in England and by Widal in France, the causal relation of the typhoid bacillus was described in 1880 by Klebs, of Koenigsberg, by Eberth of Leipzig and by Koch of Gottingen.

This seems a rational view of the nature of medical progress, and indeed of all scientific discoveries. As Stern points out, facts, often apparently of little value in themselves, are ascertained by many workers and accumulate until some individual perceives their application to one of the unsolved problems of life, when immediately they become stepping stones to what is hailed as a brilliant discovery.

## THE OPPORTUNITIES AND DEMANDS OF THE HOUR

THE address of Mr. George R. Nutter, the retiring President, before the annual meeting of the Boston Bar Association is of unusual interest to the medical profession. Law and Medicine have many interests and many problems in common.

The "growth in population, the development of modern industry, the progress of invention and the evils and temptations of prosperity" which Mr. Nutter mentions as concerning the Law also intimately concern Medicine. The "changing industrial order" which confronts Massachusetts needs as he says the aid of "A zealous and scholarly bar" but it also needs the aid of an alert medical profession. Changing conditions demand careful thought and efficient answers.

The words which follow apply also to our Massachusetts Medical Society. "It is for us of the Bar Association who represent the crystalized sentiment of the bar, to help Massachusetts. We are a part of her. As she goes forward she looks to us. For these accomplishments we must take in and inspire the younger men. We must avoid all cliques. Every one who is with us in heart must be welcome to us in presence. The same breadth of view with which we welcome our brethren we should extend to new ideas in our procedure. We should recognize frankly the conservatism of our calling and the limitations that it may impose upon us. Retaining the stability which conservatism gives, we must be receptive to every new idea, prove everything, and hold fast to what we find to be good. With this attitude, we must make the people feel that we are a part of them in whom they can have trust. And if we so play our part, they will have confidence in us."

Not without significance to us are the remarks of Mr. Nutter that "it will be recalled that the reforms in the English procedure sprang in large measure from the efforts of lay men and against the opposition of the bar." "The law should not be thought of by the rest of the community as being carried on in some far off fashion. On the contrary there ought to be some general knowledge of its procedure, not so technical that it could not be understood, but outlined in such fashion that the community may see what the general purpose of the procedure may be."

Touching upon a problem which has for years been pressing in medicine Mr. Nutter says:

"More important even than getting the unfit out of the bar is the task of keeping them from getting in. Here the past year has repeated the history of the past five years. State after State has passed Massachusetts. The standard of requirements for the bar has elsewhere been constantly advancing. But every effort to get beyond the two years in an evening high school has been unsuccessful. These two years, which amount to about two hundred and eighty-eight hours of schooling in all, represent to the Legislature the acme of educational effort. Some day it will surely dawn upon the legislative mind that the real point of view is that of the public, and that it cannot be too much of a handicap in a community like this where the means of education are supposed to be ample, to compel every man—rich or poor—to do a little more studying, if he is to represent adequately his client in the protection of legal rights."

"This is pretty serious business. It is not merely the chagrin with which we see other States advancing beyond our own Common-

wealth. We must get used to such chagrin in this as in other matters. It is the unfortunate community which is really entitled to be well served by the professions of law and medicine and other lines of professional endeavor. Some day, perhaps, the business world and the laymen generally will wake up to this situation and help us to remedy it."

It is to be hoped that the time may soon come when lawyers and physicians may work side by side for higher professional standards. Unfortunately so far it has appeared that by working together they have merely united the opponents of each profession against both.

## THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

CUSHING, HARVEY. A.B., A.M., LL.D., M.D. Harvard Medical School 1895, F.A.C.S., F.R.C.S. England and Ireland, Surgeon-in-Chief at the Peter Bent Brigham Hospital, Member of the American Surgical Association and the American Academy of Arts and Sciences. His subject is: "Emancipators." Page 651. Address: Peter Bent Brigham Hospital, Boston.

PARKER, DAVID W. A.B., M.D. Harvard Medical School 1903, F.A.C.S., Surgeon to the Eliot and Balch Hospitals, Manchester, N. H., and Consulting Surgeon to the Peterborough Hospital, Peterborough, N. H. His subject is: "Treatment of Empyema in Children by the Closed Method and Suction Drainage." Page 653. Address: 967 Elm St., Manchester, N. H.

WHITAKER, LESTER R. M.D. Harvard Medical School 1923, National Research Council Fellow, University of Rochester School of Medicine and Dentistry under Professor of Surgery, John J. Morton, Formerly Arthur Tracey Cabot Fellow in charge of the Laboratory for Surgical Research at Harvard Medical School, and Assistant Resident Surgeon at Peter Bent Brigham Hospital, under Dr. Harvey Cushing. His subject is: "Sub-Peritoneal Cholecystectomy." Page 657. Address: Strong Memorial Hospital, Rochester, N. Y., Temporary 721 Huntington Ave., Boston.

SMITH, FLOYD R. A.B., M.D. University of Virginia, 1922, Pediatrician on Staff of St. Luke's Hospital, Pittsfield. His subject is: "Celiac Disease Complicated by Purpura." Page 658. Address: 8 Bank Row, Pittsfield, Mass.

PAINTER, CHARLES F. A.B., M.D. Harvard Medical School 1894, Professor of the History of Medicine, Tufts College Medical School, Associate in the Graduate Department of Orthopedics at the Harvard Medical School. His subject is: "Medical Education." Page 663. Address: 520 Commonwealth Ave., Boston, Mass.

BROWN, THOMAS S. M.D. University of Vermont College of Medicine 1904, Professor of Anatomy at University of Vermont College of Medicine. His subject is: "Doctors in and For Rural Communities." Page 666. Address: 262 Pearl St., Burlington, Vt.

## MISCELLANY

### The Massachusetts Medical Society

SECTION OF OBSTETRICS AND GYNECOLOGY

1927—1928

Chairman, Foster S. Kellogg, M.D.; Secretary, Frederick L. Good, M.D.; Clerk, Frederick J. Lynch, M.D.

All communications should be sent to the Clerk, care of BOSTON MEDICAL AND SURGICAL JOURNAL.

THE PROGRAM FOR THE YEAR

In accordance with the vote of the section at the June meeting, 1927, the following committee has been appointed by the chairman for the purpose of studying the incidence of Puerperal Sepsis in Massachusetts for the year 1927-1928.

Charles E. Mongan, M.D., Somerville, Chairman; Thomas Almy, M.D., Fall River; Richard S. Benner, M.D., Springfield; Thomas R. Goethals, M.D., Boston Lying-In Hospital; Charles J. Kickham, M.D., St. Elizabeth's Hospital; Joseph W. O'Connor, M.D., Worcester; A. K. Paine, M.D., Salvation Army Hospital; Louis E. Phaneuf, M.D., Carney Hospital.

The officers of the section are members ex-officio.

It must be realized that if this committee is to be successful coöperation and help from each member of the Massachusetts Medical Society doing obstetrics is a vital necessity. In this connection it may be pointed out that investigation of this important subject is being conducted by physicians themselves. The problem as we are approaching it is not a social service one nor a public health problem. It is purely medical. The committee represents merely a group of members to gather and work up available material of the whole section, and not a group of outside investigators prying into individual results in each physician's obstetrical work. No obstetrical section of any other state society in the United States has attempted this problem in this way. To reiterate, the success of the project depends on the coöperation of every man practicing obstetrics in Massachusetts whether a general practitioner or a specialist.

This column will be conducted each week in

the BOSTON MEDICAL AND SURGICAL JOURNAL primarily to answer queries from practitioners. These answers will give approved and conservative consideration to obstetrical problems which may arise in practice. Such queries should be sent to Dr. Frederick J. Lynch, Clerk of the Section, care of the BOSTON MEDICAL AND SURGICAL JOURNAL. In addition to answering each query brief essays on various obstetrical subjects will be published in the column from time to time. Occasionally, comment will be made on different causes of deaths in the puerperal state as they are reported.

It is our hope that not only will the members of the section coöperate with the committee in their work but that many members of the section will be stimulated to send in questions so that the column may be kept alive with material of interest to the practitioner of obstetrics.

## REPORT OF THE COMMITTEE ON INSURANCE

*To the Members of the Massachusetts Medical Society:*

The Committee appointed at the Meeting of the Council held October 5, 1927, to consider Malpractice Insurance for Fellows of the Society has the following report to make:

In 1921 a blanket insurance policy against suits for malpractice, as issued by the United States Fidelity and Guaranty Co., was endorsed by vote of the Council. In 1923 this group policy was given up and the same company issued individual policies for members only of the Massachusetts Medical Society. During these six years the company has satisfactorily handled nearly three hundred claims, all but a few of which were settled out of court. Of those suits that went to trial all were so well conducted that only one was lost. From the standpoint of the Massachusetts Medical Society and the individual members thereof the service rendered has been most gratifying.

From the viewpoint of the United States Fidelity and Guaranty Co. however the experience has not been so satisfactory. The number of suits against physicians for malpractice has increased annually by geometrical progression until conditions at present are little short of alarming. A careful tabulation of claims settled shows that the company cannot continue to issue policies at the present rate. The same tables show that certain specialists in medicine are more liable to suits than are general practitioners. In order to meet changing conditions, the company proposes, therefore, to equalize the burden and to proportion the cost of liability insurance by doing away with flat rate policies and issuing in their stead policies of unequal premiums varying according to the risks attached to different specialties.

Your committee feels that this is the only equitable method of solving the problem. The question then arises whether or not the new policies offered by the United States Fidelity and Guaranty Co. are the best, safest, and most economical that can be obtained. For reasons as yet unknown to your committee only three insurance companies will issue liability policies to physicians in Massachusetts. The policies offered by these companies, the amount of the indemnities, the premiums charged, both flat rates and by specialties, really differ but slightly, so that on such grounds there would seem to be little if any choice. On the other hand your committee feels that six years of satisfactory service should count for something and that in the long run it is well to cling to what has been tried and found good. At this point it should be stated that your committee has been seriously handicapped by the brief time allotted to solve this whole problem. It has been unable to learn for instance why only three insurance companies write this sort of business in Massachusetts; why only about half the medical men in this state carry liability insurance; and why less than half of those that do, have insured themselves with the company endorsed by the Massachusetts Medical Society. The answers to such questions as these might have great bearing on the problem your committee is trying to solve. For the present, therefore, your committee recommends that, in as much as the policies about to be issued expire one year from their date, the United States Fidelity and Guaranty Co.* be endorsed for one year by the Massachusetts Medical Society and that the members thereof be, and hereby are, urged to obtain policies promptly from that company in order that a united front may oppose the sinister influences that threaten all physicians in Massachusetts.

ALLEN G. RICE.
ARTHUR H. CROSBIE.
CHARLES A. SPARROW.

## COMMITTEE ORGANIZED FOR MEMORIAL TO DOCTOR SALMON

A COMMITTEE has been formed to prepare a memorial to Dr. Thomas W. Salmon, professor of Psychiatry at Columbia University, and the first Medical Director of The National Committee for Mental Hygiene, who, in August was drowned while sailing on Long Island Sound.

The Chairman and Treasurer of the Committee are Dr. Frankwood E. Williams, Medical Director of The National Committee for Mental Hygiene, and Dr. Samuel W. Hamilton, Assistant Medical Director, Bloomingdale Hospital, White Plains. The function of the Committee is to consider plans proposed for a me-

*Mr. George H. Crosbie, 79 Milk Street, Boston, is the official representative of the United States Fidelity and Guaranty Company.

morial and to receive funds for this purpose.

Other members of the Committee are: Dr. George S. Amsden, Professor of Psychiatry, Union University; Dr. A. A. Brill, New York University; Dr. Sanger Brown, II, Deputy Commissioner, State Department of Mental Hygiene; Dr. Louis Casamajor, Professor of Neurology, Columbia University; Dr. Thomas K. Davis, Assistant Professor of Psychiatry, Cornell University; Dr. Menas S. Gregory, Director, Psychiatric Pavilion, Bellevue Hospital; Dr. C. Floyd Haviland, Medical Superintendent, Manhattan State Hospital; Dr. J. Ramsay Hunt, Adjunct Professor of Neurology, Columbia University; Dr. Smith Ely Jelliffe, Editor *Journal of Nervous and Mental Diseases*, New York; Dr. George H. Kirby, Director, State Psychiatric Institute, Ward's Island, New York; Dr. Charles I. Lambert, Associate Professor of Psychiatry, Columbia University; Dr. Sylvester R. Leahy, Brooklyn, New York; Dr. Mortimer W. Raynor, Medical Director, Bloomingdale Hospital; Dr. Wm. J. Tiffany, Medical Superintendent, King's Park State Hospital; Dr. Edwin G. Zabriskie, Attending Neurologist, Neurological Institute, New York; Dr. Clarence O. Cheney, Medical Superintendent, Hudson River State Hospital; Dr. William C. Garvin, Medical Superintendent, Binghamton State Hospital; Dr. Milton A. Harrington, Consultant in Mental Hygiene, Dartmouth College.

## NEWS FROM THE NATIONAL BOARD EXAMINATIONS

THERE were 314 candidates who took either the complete examination in Part I or completed Part I by taking subjects previously postponed. Mr. Joseph Tartakoff earned the highest number of credits and Mr. Jacob Lerman the next highest. Mr. Tartakoff is a member of the class of 1929 at Tufts College Medical School, and Mr. Lerman a member of the class of 1927 at the Harvard University Medical School. The ten highest candidates, and the credits earned by each out of a possible 425 credits, were as follows:

Joseph Tartakoff, Tufts College Medical School, 391.3.

Jacob Lerman, Harvard University Medical School, 388.3.

Harry A. Sinclair, McGill University Faculty of Medicine, 382.8.

William Culloden Panton, University of Oregon Medical School 378.8.

J. Kenneth Patterson, Harvard University Medical School 375.8.

Lendon Snedeker, Harvard University Medical School 375.5.

Coyne Herbert Campbell, Rush Medical College (first one and one-half years at University of Oklahoma School of Medicine), 375.3.

Bert Barnet Hershenson, Harvard University Medical School 374.6.

Leon Lewis, University of Pennsylvania School of Medicine, 374.3.

Chester Albert Newhall, University of Vermont College of Medicine, 373.3.

Ten candidates were examined by the Subsidiary Board of Cleveland in Part III, June 27, 28, 29 and 30, 1927. Nine of the candidates were successful and will receive Certificate of the National Board.

The names of the successful candidates and their medical schools are as follows:

Dr. Harold L. Blosser, Harvard University Medical School.

Dr. Warren B. Cooksey, Harvard University Medical School.

Dr. Hamblen C. Eaton, Western Reserve University School of Medicine.

Dr. Clement C. Fenton, West Virginia University School of Medicine and Cornell University Medical College.

Dr. Theodore M. Frank, Western Reserve University School of Medicine.

Dr. Rettig A. Griswold, University of Louisville School of Medicine.

Dr. Edward H. Rynearson, University of Pittsburgh, School of Medicine.

Dr. Louis A. Schwartz, University of Michigan Medical School.

Dr. Milo R. White, Johns Hopkins University School of Medicine.

## GERMANY'S MATERNITY INSURANCE LAW

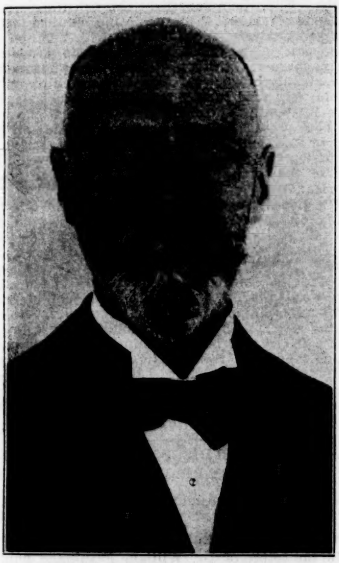
RECENT German laws ratified the Washington convention on the employment of women before and after childbirth and amended the existing legislation to that effect. Legislation on this subject has been in force in Germany for many years. The old law prohibited the employment of women for two weeks before and six weeks after confinement, but applied only to women employed in industrial establishments with 10 or more workers. The new law prohibits the employment of women for six weeks before and six weeks after confinement and includes all wage-earning women except those in agriculture, forestry, animal husbandry, and fisheries.

This law also provides that a woman may be given a further extension of six weeks if the state of her health prevents her from returning to work and that nursing mothers, at their request, must be given nursing periods amounting to one hour a day for six months after confinement. The new law, in accordance with the Washington convention, forbids the employer to discharge a woman during the six weeks preceding and six weeks following confinement.—*Bulletin U. S. Department of Labor, Children's Bureau, Washington.*

## OBITUARY

### WILLEM EINTHOVEN (1860-1927)
### DR. MED.

ALL who have journeyed to the ancient university town of Leyden to visit the ever-modest and hospitable inventor of the string galvanometer will be conscious of a sense of deep personal loss on hearing the news of his untimely



death. Those, less fortunate, who knew him only by the instrument which so appropriately bears his name, or possibly by the few weighty papers which came from his pen—multum in parvo—know but too well the great loss to the physical sciences and to the science of medicine which his death brings. An accomplished linguist, one deeply read in the history of physics and of physiology, the virtual creator of the special field of cardiology which he made so peculiarly his own, Professor Einthoven was at the same time the most genial and human of men. In his experimental work he was in the truest sense of the term, an artist. Scrupulous attention to detail and a rigid insistence upon absolute perfection of every instrument and manipulation concerned in an experiment, were the outstanding characteristics of his scientific life, and it was this very fastidiousness which made him publish so little. He was never quite satisfied with anything he did; there always seemed to lurk the feeling that it might somehow have been done better. His mind was exceptionally versatile and endowed with omnivorous curiosity, — characteristics which, with his fastidious and temperamental ways, made him something of a modern Leonardo.

Professor Einthoven was born of Jewish parents May 21, 1860, in Samarang, Java (Dutch East Indies), but he passed the greater part of his life in Holland. He studied at Utrecht from 1879 until 1885 in which year he received his medical degree. In 1886 he was appointed Professor of Physiology at Leyden, a post which he held for forty years. At the age of 22, while still a medical student, he published a paper on the mechanism of articulation of the elbow *(Arch. Néerland.*, 1882, tom. 17, 10 pp.). In 1883 he became assistant at the Utrecht Eye Hospital. His inaugural dissertation on the law of specific nerve energies, published in Leyden in 1886 (27 pp.), won him a wide reputation and was probably responsible for his appointment to the chair of physiology at Leyden in the same year. In 1886 also he wrote a paper on the influence of color difference on the production of stereoscopic effects *(Arch. Néerland.*, tom, 20), a subject which he elucidated again later in *Brain* (1893, vol. 61). During his early years at Leyden he wrote on the physiology of the bronchial musculature, on the physiology of the eye, and upon the physics of the capillary electrometer *(e.g., Pflüger's Arch.*, Bd. 79, 1900).

One of his early publications from the laboratory at Leyden was an analysis of the electrocardiogram by means of the capillary electrometer *(Pflüger's Arch.*, Bd. 56, 1894). The inadequacy of the electrometer led him to seek a more effective instrument of precision for cardiographic analysis. After a number of years of painstaking research he finally devised the string galvanometer, which was first described in the*Annalen der Physik* (4th folge, March 12, 1903, pp. 1059-1071). A second paper on the uses of the string galvanometer appeared in the same journal in 1904 (March 14, pp. 182-192). The instrument was first used in association with sound transmitters for registering the sounds of the heart (see *Arch. Néerland.*, 1907, ser, 2, tom, 12, pp. 401-411; and *Pflüger's Arch.*, 1907, Bd. 120, pp. 31-43). Not until 1908 did Einthoven publish the first complete description of the electrocardiogram as studied by means of the new galvanometer *(Pflüger's Arch.*, Bd. 122, pp. 517-584). In the next five or six years subsequent papers appeared dealing with the significance of the electrocardiogram. He elucidated the physical principals of the electrocardiogram and gave the accepted interpretation of the three-lead (I, II and III) curves used in every electrocardiographic clinic. He also made pioneer contributions on the interpretation of various pe-

culiarities of the electrocardiogram produced by pathological alterations in heart muscle, but Einthoven's deeper interests were in the physical principles of his instrument rather than in the more purely physiological uses to which it might be put. His extraordinary technical skill led him to the perfection a few years before his death of an instrument carrying a string 0.1μ in diameter, or narrower than the greatest wave length of the visible spectrum. The fact that a string of these dimensions could cast a shadow led him into an abstruse investigation of the mathematical principles involved in the casting of shadows by small objects. According to accepted dogma, objects smaller than a wave length of the visible spectrum should not cast a shadow, provided they were not agitated. This is but a single instance of the higher realms of intellectual attainment which he reached.

Many will recall with great pleasure Professor Einthoven's Edward K. Dunham Lectures in 1924 at the Harvard Medical School. His was the first of a notable series of lectures given on these annual occasions. He dealt in his lectures with the relation of mechanical and electrical phenomena in muscle, a subject on which he also discoursed to the Harvey Society in New York ("The relation of mechanical and electrical phenomena of muscular contraction, with special reference to the cardiac muscle") a short time later. In 1924 also Einthoven was awarded the Nobel Prize in Medicine.

During the past year Professor Einthoven's health had been failing and his death on September 28th was not wholly unexpected.

## CORRESPONDENCE

### REPORT OF ATTENDANCE ON THE PSYCHOANALYTICAL CONGRESS

October 14, 1927.

*Editor, Boston Medical and Surgical Journal:*

During a trip to Europe last summer, I attended the Psychoanalytical Congress held at Innsbruck during the three days from September first to September third. I thought perhaps that some of the readers of the JOURNAL might feel interested in a brief account of the scientific proceedings of the meetings.

This was the tenth Congress of the International Psychoanalytical Association. It was voted that the eleventh Congress be held in England. The first Congress took place at Salzburg in 1908, a little over a year preceding Freud's visit to Clark University, at which time he gave five lectures on the development of psychoanalysis up to that period. About two hundred members were present at the Innsbruck Congress, representing the various psychoanalytic societies in the United States, Western Europe, Russia and South America.

At this Congress, the newly formed Paris Psychoanalytical Society, the first of its kind in France, was formally admitted as one of the constituent societies. This society numbers among its membership the younger French neurologists and psychiatrists and has already begun to publish an independent journal as the official organ of the society, the *Revue Française de Psychoanalyse*, the first number of which appeared in July, 1927. With the advent of this publication there are now seven journals devoted exclusively to psychoanalysis, in German, English, Italian and French. The foundation of the French society and its admission to the International Association constituted the first step towards breaking down the resistance in France to psychoanalysis. However, signs of this tendency had been already visible for several years, in the appearance of translations of Freud's works into French.

The Congress itself was opened with a paper by Freud on humor, supplementing his previous theories on the nature of wit, through a more dynamic approach. The other papers of the scientific sessions related to various theoretical and clinical aspects of psychoanalysis, such as, to briefly mention only a few, suicidal mechanisms, melancholia, female sexuality, character traits, the analytic treatment of the neuroses, alcoholism and primitive mentality. These papers were read in German, English and French.

An interesting feature of the Congress, one which had been previously considered at the Homburg meeting in 1925 but which was again precipitated into discussion through Freud's recent book, was the question of the scientific training necessary to practise psychoanalysis.

It is impossible to give all the details of this interesting discussion which nearly completely occupied two full business meetings, that of the International Educational Committee and of the Congress as a whole. It can be briefly stated, however, that the strongest and most important feature of the discussion was towards eliminating insufficiently trained and poorly equipped individuals from practising psychoanalysis and there was formulated what the committee felt should be the minimum training and scientific requirements absolutely necessary before any individual should be allowed to practise psychoanalysis.

Very truly yours,
ISADOR H. CORIAT.

### AN OPEN LETTER DISCUSSING THE ARGUMENTS ADVANCED BY DR. WILLIAM FRANKMAN

167 Lincoln Street, Worcester, Mass.,
October 10, 1927.

*Editor, Boston Medical and Surgical Journal:*

In the letter of Dr. William Frankman published in your issue of October 6, 1927, a union of the medical profession primarily for their economic benefit is advocated. Now, to unionize the profession of medicine seems more abhorrent than to unionize the members of police and fire departments. It is wholly incompatible not only with medical traditions but also with the nature of the service rendered.

After all, what can the members of the profession demand of society? An opportunity to practice their profession in the most intelligent and efficient manner, and, in return, a decent living for their families. That is all that a successful member of any learned profession seeks.

It is granted that the economic position of many physicians is jeopardized by the many different independent health and accident agencies in operation in any community, especially a larger center of population, and that coöperative medicine must supersede either competitive or individualistic practice, probably both. How, then, can a satisfactory economic state of the majority of physicians be assured in an ethical way? Only by their endeavoring to improve the service rendered their fellow-men. The question, therefore, which cannot be ignored, is what sort of a coöperative system of medicine will best serve the people.

Of these, there are possible but four. The first is a priesthood, an order of celibates dedicating their

lives to the medical welfare of mankind. Such might arise spontaneously if exigent, but could not be created.

The second is a private corporation, somewhat analogous to group practice. Since they are run for profit, they could not care for the poor and needy without undue financial risk.

The third is a public corporation corresponding to public service corporations providing electric light and power, gas, telephone, and transportation. For such no precedent whatever can be found to supply even the nucleus for the formation of an adequate and comprehensive organization.

The last is state medicine or public medicine—a free, complete service coextensive with the commonwealth. For such the Medical Corps of the Army and the Navy offer suitable models. Why wait for such an organization insidiously to evolve from the state commission of public health by the extension and multiplication of its various departments?

Yours truly,

G. W. HAIGH.

## SUSPENSIONS OF REGISTRATIONS OF TWO PHYSICIANS

October 6, 1927.

*Editor, Boston Medical and Surgical Journal:*

This is to inform you that at a meeting of the Board of Registration in Medicine, held October 6, 1927, the Board suspended the registration of Dr. Edmond Federici, of 94 Shrewsbury Street, Worcester, Mass., for one month from date. The reason for suspension of this license was for violation of the prohibition law.

On the same date the Board suspended for one month the registration of Dr. Robert T. Sullivan—4240 Washington Street, Boston, Massachusetts. The reason for this suspension was irregularity in filing of birth returns.

Very truly yours,

DR. FRANK M. VAUGHAN, *Secretary.*

## HAY FEVER

1208 Cheyenne Boulevard,
Colorado Springs, Colo.,
October 5, 1927.

*Editor, Boston Medical and Surgical Journal:*

To anybody interested in Hay Fever, "Autumnal Catarrh," by Dr. Morrill Wyman, one time Hersey Professor of Medicine in Harvard University, is well worth a reading. His observations and case reports deserve study.

The book was published in 1876, by Hurd & Houghton, New York.

K. R. PARMENTER.

## AMERICAN MEDICAL ASSOCIATION

COUNCIL ON PHARMACY AND CHEMISTRY

*Editor, Boston Medical and Surgical Journal:*

In addition to the articles enumerated in our letter of August 27, the following have been accepted:

E. Bilhuber, Inc.
Bromural.

Parke, Davis & Co.
Diphtheria Toxin-Antitoxin, 0.1 L+ — P. D. & Co.

Swan-Myers Company
Capsules Ephedrine Hydrochloride—Swan-Myers, 0.05 gm

Yours truly,

W. A. PUCKNER, *Secretary,*
Council on Pharmacy and Chemistry.

## FREE MEDICAL SERVICE

Everett, Mass., September 17, 1927.

*Editor, Boston Medical and Surgical Journal:*

I was much interested in the editorial in the JOURNAL for September 15, 1927. In 1917 I looked up some of the data giving the amount of free material given by hospitals and dispensaries in Massachusetts. A summary was published in the JOURNAL under issue of February 14, 1918, pp. 217-220. This may be of interest to the writer of the editorial.

GEO. E. WHITEHILL.

## APPRECIATION OF A BOOK REVIEW

September 26, 1927.

*Editor, Boston Medical and Surgical Journal:*

I wish to express my appreciation of the very generous appraisal of my book, "Random Talks by an M.D.," which appeared in the JOURNAL.

I would like also to say that a second edition of the book is now ready in which the typographical errors justly referred to by your reviewer have been largely eliminated.

MAURICE W. PEARSON, M.D.

## A FURTHER DEFENSE OF THE TOOTHBRUSH

September 12, 1927.

*Editor, Boston Medical and Surgical Journal:*

The writer of the Editorial Note on my recent letter *in re* toothbrushes seems to have missed the point which I wished to make, which was that such a "study" is hardly a proper field for the activities of a Health Department when so many more useful lines of investigation exist.

If you have a pet elephant of course you *may* use him to gather up pins, but it is a mighty uneconomical way of doing and may prevent him from doing something for which he is better fitted.

I purposely refrained from referring to the objections to the use of the toothbrush, as I believe that the advantages of its use outweigh the disadvantages and I did not wish to say anything which might seem to discourage its use.

I agree most heartily with the statement that "infections may follow self-inflicted abrasions," as well as those not self-inflicted, but I feel sure that the majority of such infections, i. e., by means of self-inflicted abrasions of the mucous membrane of the mouth, are due to organisms introduced from the outside by other means, rather than by a toothbrush, whose organisms originally came from the owner's mouth.

Let me say here, to prevent misunderstanding, that I admit that it is possible, but not very probable, that a toothbrush, during its periods of rest in a bath room, may pick up some organisms alien to its owner's mouth, but, here again, the close contact obtaining between members of the same family offers a more probable means of transmission.

On the whole, it seems to me that the net result of the "study," aside from the academic interest of the identification of the flora of the toothbrush, may be to cause some nervous persons to discard their toothbrushes, which would be unfortunate not only for themselves but for others.

FRANCIS GEO. CURTIS, M.D., *Chairman.*

## EXPERIENCE IN A FREE HOSPITAL MEDICAL CLINIC AND PRIVATE PRACTICE

September 26, 1927.

*Dear Editor:*

I read with the greatest of interest your editorial in the BOSTON MEDICAL AND SURGICAL JOURNAL of Sep-

tember 15 entitled "Free Medical Service—Are There Any Remedies?"

There is of course no doubt in the minds of any of us who have worked at the certain Boston institution to which you refer as to the truth of your statement. After nearly 20 years of service at a certain Boston institution I resigned a few years ago, partly, it is true, because I felt that I owed my best time and service to my private patients but chiefly because I was unwilling to put up with the very patent and flagrant abuse of medical charity which existed at that institution. I submitted to the Board of Trustees of said institution a group of 30-40 patients that I had investigated and talked with frankly and openly in which abuse of medical charity was only too evident. The great majority of patients came through ignorance, being perfectly willing to pay a moderate sum to a doctor, but not knowing how to get to said doctor. The Trustees of this Hospital while admitting the facts felt that there was no remedy.

I talked with a majority of the younger members of the staff of the O. P. D. who felt very deeply on the subject and who substantiated my own views and enlarged upon them. Indeed there can be no disputing of the facts. The problem of remedying this of course is difficult and yet in other states, particularly in the West, there seems to be no such abuse of medical charity as it exists here. I cannot make out that anything beyond the most perfunctory questioning of patients is done to prevent the abuse of such charity.

Dr. John Lovett Morse was quoted as having said once that the most important single medical service in this city would be to have the O. P. D. of the Massachusetts General Hospital close its doors for six months. Although this is a radical statement I must say that I would agree with him to a certain extent.

Since my resignation I have seen at my own office, and I am frank to admit have given them infinitely better treatment and better service, many of the same patients and likewise the same type of patient whom I used to see at the O. P. D. free of charge but who now pay me a moderate fee and who see me by special appointment, thereby not wasting an entire half day and often three-quarters of the day at the O. P. D.

Very truly yours,

JOHN B. HAWES, 2ND.

DEATHS (STILL-BIRTHS EXCLUDED) REPORTED DURING THE WEEK ENDING OCTOBER 1, 1927, WITH DEATH RATES IN LARGE CITIES OF NEW ENGLAND

| City | Week ending Oct. 1, 1927 | | | | Infant mortality rate for the year 1925 | Corresponding week, 1926 | | |
|---|---|---|---|---|---|---|---|---|
| | Total Deaths | Death rate | Deaths under 1 year | Infant mortality rate | | Total deaths | Death rate | Deaths under 1 year |
| Boston | 182 | 12.0 | 27 | 75 | 85 | 176 | 11.7 | 28 |
| Bridgeport | 26 | | 3 | 56 | 54 | 22 | | 4 |
| Cambridge | 25 | 10.5 | 2 | 36 | 61 | 16 | 6.8 | 1 |
| Fall River | 23 | 9.0 | 1 | 18 | 91 | 30 | 11.9 | 6 |
| Lowell | 19 | 9.0 | 2 | 39 | 84 | 34 | 16.1 | 3 |
| Lynn | 23 | 11.4 | 0 | 0 | 78 | 13 | 6.5 | 2 |
| New Bedford | 17 | 7.4 | 2 | 35 | 80 | 18 | 7.9 | 3 |
| New Haven | 32 | 9.0 | 4 | 56 | 66 | 38 | 10.9 | 2 |
| Providence | 58 | 10.8 | 6 | 51 | 64 | 63 | 11.9 | 13 |
| Somerville | 18 | 9.2 | 3 | 100 | 77 | 17 | 8.9 | 0 |
| Springfield | 26 | 9.2 | 7 | 108 | 68 | 22 | 7.9 | 0 |
| Waterbury | 13 | | 3 | 71 | 83 | 11 | | 1 |
| Worcester | 49 | 13.1 | 6 | 72 | 75 | 45 | 12.2 | 2 |

## NEWS ITEMS

ADDITIONS TO HOSPITALS ABOUT BOSTON—The Executive Committee of the Robert B. Brigham Hospital for chronic invalids is appealing to the public for $600,000 for a new building to house incurable patients and for a solarium to be erected on top of the present service building. Owing to the necessarily long time that these chronic patients have to stay in the hospital, the total number of patients who can be cared for is much less than in a general hospital. Many applicants have to be refused admission to the Robert B. Brigham on this account.

The trustees of the Newton Hospital recently invited inspection of the new building development. The new buildings, it is expected, will be ready for occupancy in September, 1928. Last year $1,151,709 was raised for the building program, but in order to carry this program to completion an additional $350,000 is needed. An intensive effort will be launched to complete the fund by the end of October. Gifts amounting to $133,500 are contingent on the entire amount being raised.

Several hundred members of the Catholic Women's Guild assembled in the Holy Ghost Hospital for Incurables, Cambridge, on Sunday afternoon, October 2, for the purpose of dedicating a floor in the new wing of the building which was their gift. In addition, a check for $5500 was given to Sister Superior Casey, which will go toward defraying the general expenses of the hospital.

The unveiling of a bronze tablet, dedicating the third floor, by the State Regent, Mrs. Charles M. Hall, featured the program. Monsignor Ambrose F. Roche, rector of St. Patrick's Church, Watertown, chaplain of the guild, extolled the women for their ardent work and coöperation in financing the equipment.

Mrs. William F. Handschumacher, State chairman of charities, headed the committee in charge of arrangements, which included: Mrs. Charles M. Hall, State Regent; Miss Marcella McKenna, vice-regent; Mrs. Mary E. Cogan, a former regent, and Miss Anna Hanlon, treasurer.

MEDICAL OFFICERS DETAILED TO FAR EAST CONFERENCE—In answer to an inquiry from the Secretary of State relative to the attendance of two delegates at the Seventh Congress of the Far Eastern Association of Tropical Medicine, which will open at Calcutta, India, on December 5, 1927, the Secretary

of War has advised the Secretary of State that Major General Fred W. Sladen, commanding the Philippine Department, has detailed Lieutenant Colonel Edward B. Vedder, Medical Corps, and Major Samuel A. White, Medical Corps, to attend the Congress.—*United States Daily.*

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NEWS ITEMS FROM THE HAMPSHIRE DISTRICT—(1) The Hampshire District Medical Society held its September meeting at Cooley-Dickinson Hospital Wednesday, September 21. The scientific paper was read by Dr. Neil A. Dayton on "The Retarded Child in the Public School."

(2) All the Fellows are interested in a drive for $400,000 to be launched October 14 and continue for ten days, the money to be used to build a maternity wing and new surgery.

(3) Dr. Thomas H. Kenny and Miss Gertrude Balise were married June 7, 1927. Miss Balise was supervisor of the obstetric ward at Cooley-Dickinson Hospital.

LUTHER O. WHITMAN, *Secretary.*

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RESIGNATION OF DR. M. H. JORESS—Dr. M. H. Joress has resigned from the staff of the Rutland State Sanatorium after serving there for five years in the capacity of assistant physician. He has been appointed as an examiner in tuberculosis for the Boston Health Department, and has been appointed at Tufts College Medical School as a teaching assistant. His practice is now limited to pulmonary diseases, and his office is at 483 Beacon Street.

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RESIGNATION OF DR. BOVIE—Dr. William T Bovie has resigned as Assistant Professor of Bio-Physics at Harvard University to accept the position of Professor of Bio-Physics at Northwestern University.

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HARVARD MEDICAL SCHOOL NEWS—The year 1927-'28 opened at Harvard Medical School on Monday, September 26. The first year men registered on Friday, September 23, while the rest of the school registered on the opening day. The total enrollment is 522, divided in the following manner: First year, 125; second year, 127; third year, 135; fourth year, 134; and one special student for the degree of Doctor of Medical Science.

At a meeting of the Faculty of Medicine held in the Faculty Room on October 7, 1927, it was voted to recommend the following appointments in the Medical School. These appointments were approved by the Corporation at its meeting on October 10, 1927.

*Reappointments with change of title*—One year from September 1, 1927:

William Gordon Lennox, M.D., Assistant in Medicine and Research Fellow in Neuropathology, from Research Fellow in Neuropathology.

Dwight Lewis Sisco, M.D., Assistant in Medicine, from Henry Pickering Walcott Fellow in Clinical Medicine.

James Clarke White, M.D., Assistant in Surgery, from Alumni Assistant in Surgery.

*Reappointments*—One year from September 1, 1927:

Luther Gordon Paul, M.D., Instructor in Surgery.

Frank Dennette Adams, M.D., Assistant in Medicine.

Harry Blotner, M.D., Assistant in Medicine.

William Bradley Breed, M.D., Assistant in Medicine.

Percy Bernard Davidson, M.D., Assistant in Medicine.

James Hitchcock, M.D., Assistant in Medicine.

Donald Storrs King, M.D., Assistant in Medicine.

William Parry Murphy, M.D., Assistant in Medicine.

Dwight O'Hara, M.D., Assistant in Medicine.

Louis Wolff, M.D., Assistant in Medicine.

John Howard Ferguson, B.A., Assistant in Pathology.

James Stewart Rooney, M.D., Assistant in Pathology.

Raymund Lull Zwemer, Ph.D., Research Fellow in Physiology.

*New Appointments*—One year from September 1, 1927:

Jacob Hyams Swartz, M.D., Assistant in Dermatology.

Albert Willard Bromer, M.D., Assistant in Medicine.

James Morison Faulkner, M.D., Assistant in Medicine.

William Perrine Van Wagenen, M.D., Assistant in Neuropathology.

Sidney Farber, M.D., Assistant in Pathology.

Allan Littlefield Davis, M.D., Assistant in Surgery.

Richard Ilsley Smith, M.D., Assistant in Surgery.

Reginald Hammerick Smithwick, M.D., Alumni Assistant in Surgery.

Vincent Davis Vermooten, M.D., Assistant in Genito-Urinary Surgery.

Bancroft Cheever Wheeler, M.D., Assistant in Genito-Urinary Surgery.

John Howard Powers, M.D., Arthur Tracy Cabot Fellow in Charge of Laboratory of Surgical Research.

Samuel Bernard Nadler, A.B., Teaching Fellow in Biological Chemistry.

James Maxwell Alston, M.B., Ch.B., Research Fellow in Bacteriology.

Euchen Ho Yu, M.D., Research Fellow in Bacteriology.

Juan Mauricio Munoz, M.D., Research Fellow in Biological Chemistry.

Gordon Albert Alles, Ph.D., Research Fellow in Physical Chemistry.

Arda Alden Green, M.D., Research Fellow in Physical Chemistry.

Clyde Edgar Keeler, D.Sc., Research Fellow in Ophthalmology.

Louis Klein Diamond, M.D., Research Fellow in Pediatrics.

Sidney David Kramer, M.D., Research Fellow in Pediatrics.

Herbert Isaac Coombs, A.M., Research Fellow in Physiology.

Jose Joaquin Izquierdo, M.D., Research Fellow in Physiology.

Milton Oliver Lee, Ph.D., Research Fellow in Physiology.

Robert Milo Moore, M.D., Research Fellow in Physiology.

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DR. WILINSKY ADDRESSED THE NATIONAL COMMITTEE FOR THE PREVENTION OF BLINDNESS AND THE AMERICAN PUBLIC HEALTH ASSOCIATION—Dr. Charles F. Wilinsky, Deputy Commissioner of Health of Boston, spoke on "Trachoma as a Public Health Program" at the annual meeting of the National Committee for the Prevention of Blindness, at Chicago, on Saturday, October 15.

He also presented a paper on the "Value of Correlating the Health and Welfare Activities of a Community" at the annual meeting of the American Public Health Association in Cincinnati, on October 19.

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FORCED TREATMENT OF DRUG ADDICTS—Representative Porter of Pittsburgh, chairman of the House Committee on Foreign Affairs, is sponsor of a resolution introduced at a meeting of the Interparliamentary Union at Paris, which recommends that drug addicts shall be compelled to submit to treatment.

The resolution may be submitted to all the govern-

ments and parliaments of the world with a view to recognition of drug addiction as a disease demanding public regulations.—*United States Daily.*

NEW ANAESTHETICS—William T. Daugherty, the American Trade Commissioner at Berlin, has reported to the Department of Commerce three anaesthetic agents which are not given by inhalation.

E107 under the name of Avertin, produced by methods devised by Willstaedter of Munich and Sauerbruch of Berlin, is a tribromal-alcohol reported to produce narcosis by intestinal absorption. Pernokton, reported by Professor Bumm at the recent surgical congress in Berlin, is used by injection into veins.

Lumbalanaesthesia is another given by spinal injection and is spoken of not "altogether harmless." —*United States Daily.*

## NOTICES

### CORRECTION

THE name of Dr. Austen F. Riggs was incorrectly spelled in the notice which appeared in our JOURNAL of September 22, page 501, under the heading "Lectures on the Care of the Patient." Dr. Riggs' name is correct as it appears here.

### NEW ENGLAND PEDIATRIC SOCIETY

THE Combined Meeting of the New England Pediatric Society, the Philadelphia Pediatric Society and the Section of Pediatrics of the New York Academy of Medicine will be held in New York City on Saturday, October 29, 1927.

Members will take the Fall River Boat Train leaving the South Station at 6 P. M. Friday, October 28, 1927. Tickets and staterooms may be purchased on personal application at the South Station, Back Bay Station and 67 Franklin Street, Boston. Reservations may be made through Mr. W. U. Bixby, Ticket Agent, South Station, Boston, Telephone Hubbard 3345. These reservations will be held until 5 P. M. Friday, October 28, 1927.

*Please make your own Reservations.*

THOMAS H. LANMAN, *Secretary,*
New England Pediatric Society.

### PHYSICIANS' ART EXHIBIT

NOTICE is hereby given that the opening of this exhibition, originally planned for on about November 1, has been postponed to Wednesday, November 30. Further particulars later.

DR. HRANT S. KEBABJIAN and Dr. Missak G. Odian announce the removal of their office to 481 Beacon St. Dr. Kebabjian limits his practice to Surgery and Dr. Odian to Eye, Ear, Nose and Throat.

### UNITED STATES CIVIL SERVICE COMMISSION, WASHINGTON, D. C.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

Junior Medical Officer (Interne)

Applications for junior medical officer (interne) will be rated as received by the Civil Service Commission at Washington, D. C., until December 30.

The examination is to fill vacancies in Veterans' Bureau Hospitals throughout the United States, and vacancies in positions requiring similar qualifications.

The entrance salary ranges from $1,860 to $2,400 a year without allowances, or $1,260 to $1,860 a year with quarters, subsistence, and laundry, depending upon the qualifications of the appointee as shown in the examination and the duty to which assigned.

The duties, under immediate supervision, are to admit patients, take histories, make physical and mental examinations and record findings; to make ward rounds of inspection, note charts, record observations; to prescribe for minor ailments or for acute or emergency cases and to dispense medicine in emergency; to perform minor surgical operations and to assist at major operations and in redressing; to administer anesthetics; to make routine laboratory tests and analyses; to assist at out-patient clinics in dressing and in administering vaccines; to keep records, make up case histories, answer correspondence relating to patients, and compile statistics requiring medical training.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the Board of United States Civil Service Examiners at the postoffice or custom house in any city.

### UNITED STATES PUBLIC HEALTH SERVICE

CHRONOLOGICAL LIST OF CHANGES OF DUTIES AND STATIONS OF COMMISSIONED AND OTHER OFFICERS OF THE UNITED STATES PUBLIC HEALTH SERVICE

SEPTEMBER 21, 1927

Senior Surgeon John McMullen. Directed to proceed from New Orleans, La., to Port Arthur, Beaumont and Austin, Texas, and return, to confer with the State Health Officer relative to maintaining water front inspection at Port Arthur and Beaumont, Texas. September 13, 1927.

Junior Pharmacist S. H. Butler. Directed to proceed from Norfolk, Va., to Perry Point, Md., for temporary duty until September 29; thence to Key West, Fla., under orders of September 5. September 13, 1927.

Senior Surgeon J. C. Perry. Directed to proceed from San Francisco, Calif., to Nixon, Nev., and return, to investigate conditions at a sanatorium at that place. September 14, 1927.

Chief Pharmacist L. G. Smith. Relieved from duty at Mobile, Ala., and directed to proceed to Washington, D. C., for assignment to duty at the Hygienic Laboratory. September 14, 1927.

Surgeon Joseph Goldberger. Directed to proceed from Washington, D. C., to New York City and Tuckahoe, N. Y., New Brunswick, N. J., Detroit, Mich., Chicago, Ill., and Cincinnati, Ohio, and return, for consultation with officials of certain pharmaceutical establishments. September 15, 1927.

Sanitary Engineer L. C. Frank. Directed to proceed from Montgomery, Ala., to Washington, D. C., September 19, and return, for conference at the Department of Agriculture. September 17, 1927.

Assistant Surgeon General F. C. Smith. Directed to proceed from Washington, D. C., to Carville, La., Buffalo, N. Y., Cleveland, Ohio, Detroit, Mich., and Chicago, Ill., for conferences with the Medical Officers in Charge of the Marine Hospitals at those places; thence to Minneapolis, Minn., to attend the annual meeting of the American Hospital Association, returning to station upon completion of duties enjoined. September 20, 1927.

BOARD CONVENED

A board of officers convened to meet at San Francisco, Calif., at the call of the chairman, for the purpose of making a physical examination of an officer. September 13, 1927. Detail for the board: Surgeon R. H. Creel, chairman; Surgeon J. R. Ridlon, member: Surgeon R. W. Hart, recorder.

C. C. PIERCE, *Acting Surgeon General.*

SEPTEMBER 28, 1927

Surgeon Friench Simpson. Directed to proceed from Mobile, Ala., to Jacksonville, Fla., and return, to diagnose suspected cases of typhus fever. September 20, 1927.

Associate Sanitary Engineer A. P. Miller. Directed to proceed from Washington, D. C., to Chicago, Ill., September 27, and return, in connection with the application of the interstate quarantine regulations to drinking water furnished on interstate carriers. September 21, 1927.

Associate Sanitary Engineer E. C. Sullivan. Directed to proceed from New York City to Chicago, Ill., September 27, and return, in connection with the certification of drinking water supplies used on interstate carriers. September 21, 1927.

Assistant Surgeon General F. A. Carmelia. Directed to proceed from Washington, D. C., September 23, to Milford, Del., and return, to inspect quarantine tugs under construction at that place. September 22, 1927.

Surgeon J. P. Leake. Directed to proceed from Washington, D. C., to Baltimore, Md., September 22, and return, in connection with tetraethyl lead gasoline investigations. September 22, 1927.

Associate Sanitary Engineer A. W. Fuchs. Relieved from duty in connection with salt marsh survey and assigned to duty in connection with milk investigations, with headquarters at Biloxi. Directed to proceed from Biloxi, Miss., to such points in the State of Texas as may be necessary, and return, in connection with milk studies. September 22, 1927.

Acting Assistant Surgeon L. N. Todd. Directed to proceed from Fort Stanton, N. M.,, to San Francisco, Calif., to accompany a patient to U. S. M. H. No. 19. September 22, 1927.

Assistant Surgeon General Thomas Parran, Jr. Directed to proceed from Washington, D. C., to Cincinnati, Ohio, and return, to attend the annual meeting of the American Public Health Association to be held October 17-21. September 23, 1927.

Surgeon J. G. Wilson. Authorized to proceed from El Paso, Texas, to Phoenix, Ariz., and return, to investigate a claim against the United States Employees' Compensation Commission. September 23, 1927.

Passed Assistant Dental Surgeon (R) R. C. Stewart. Bureau orders of September 13, 1927, amended so as to relieve him from duty at New York City and assign him to duty at U. S. M. H. No. 6, Cleveland, Ohio, effective September 27 instead of October 1. September 23, 1927.

Acting Assistant Surgeon O. C. Wenger. Directed to proceed from Hot Springs, Ark., to Kansas City, Mo., and return, to attend the annual regional conference on social hygiene of the American Social Hygiene Association to be held October 10-12. September 23, 1927.

Senior Surgeon C. H. Lavinder. Directed to proceed from New York City to Carlisle Barracks, Pa., and return, to attend the meeting of the Association of Military Surgeons to be held October 6-8. September 26, 1927.

Sanitary Engineer L. C. Frank. Bureau orders of September 17 amended so as to direct him before returning to station to proceed to Chicago, Ill., and Madison, Wis., to investigate the milk situations in those cities. Also directed to proceed from Montgomery, Ala., to Cincinnati, Ohio, and return, to attend the annual meeting of the American Public Health Association to be held October 17-21. September 26, 1927.

Sanitary Engineer H. W. Streeter. Directed to proceed from Cincinnati, Ohio, to Ames, Iowa, and return, to attend the Iowa Conference on Sewage Treatment to be held November 1-3. September 26, 1927.

Surgeon Edward Francis. Directed to proceed from Washington, D. C., to Springfield, Ill., and return, to attend the Semi-Centennial Celebration of the Illinois State Board of Health to be held October 13-15. September 27, 1927.

Surgeon G. W. McCoy. Directed to proceed from Washington, D. C., to Cincinnati, Ohio, and return, to attend the annual meeting of the American Public Health Association to be held October 17-21. September 17, 1927.

Surgeon A. J. McLaughlin. Directed to proceed from St. Louis, Mo., to Cincinnati, Ohio, and return, to attend the annual meeting of the American Public Health Association to be held October 17-21. September 27, 1927.

Surgeon W. C. Rucker. Directed to proceed from New Orleans, La., to Minneapolis, Minn., and return, to attend the annual meeting of the American Hospital Association to be held October 10-14. September 27, 1927.

Passed Assistant Surgeon Kenneth F. Maxcy. Directed to proceed from Washington, D. C., to Cincinnati, Ohio, and return, to attend the annual meeting of the American Public Health Association to be held October 17-21. September 27, 1927.

BOARDS CONVENED

A board of officers convened to meet at New Orleans, La., at the call of the chairman, to investigate charges preferred against an Assistant Surgeon of the Regular Corps. September 22, 1927. Detail for the board: Senior Surgeon John McMullen, Surgeon W. C. Rucker, Surgeon M. F. Haralson.

A board of officers convened to meet at Norfolk, Va., October 3, 1927, to determine the physical eligibility of a candidate for permanent appointment as Machinist, United States Coast Guard. September 22, 1927. Detail for the board: Surgeon A. D. Foster, Assistant Surgeon B. J. Macauley.

Official:

C. C. PIERCE, *Acting Surgeon General.*

## REPORTS AND NOTICES OF MEETINGS

### MASSACHUSETTS ASSOCIATION OF BOARDS OF HEALTH

THE regular meeting and luncheon at the Hotel Bellevue, Beacon Street, Boston, Mass., Friday, October 28th, at 12:30 P. M.

PROGRAM

Papers: "Our Poliomyelitis Problem," by Dr. Milton J. Rosenau, Professor of Preventive Medicine and Hygiene, Harvard University. "The Epidemiology of Poliomyelitis," by Dr. W. Lloyd Aycock, Member of the Harvard Infantile Commission, Director of the Research Laboratory, Vermont State Health Department.

General Discussion opened by George T. Lennon, Agent, Haverhill Board of Health, followed by Jacob R. Sackett, Agent, Springfield

Board of Health; Dr. Thomas F. Kenney, Director of Health, Worcester, Mass.; Dr. Clarence L. Scamman, Deputy State Health Commissioner and others.

Health officers, physicians and others interested are invited to attend.

STEPHEN L. MALONEY, *Secretary.*

## THE CLINICAL AND SURGICAL ASSOCIATION OF MASSACHUSETTS

THE Clinical and Surgical Association of Massachusetts will hold their semi-annual meeting in Philadelphia, October 25, 26, and 27, as the guests of Dr. John B. Deaver.

## DEDICATION OF VANDERBILT HALL

VANDERBILT HALL, the new dormitory of the Harvard Medical School, was dedicated on Friday, October 14, with appropriate ceremonies. At four o'clock in the afternoon the guests assembled in the gymnasium and after an introductory address by Dr. Philemon E. Truesdale, President of the Alumni Association, Dr. Elliott P. Joslin was introduced. Dr. Joslin first spoke feelingly of the loss sustained by the School and the medical profession by the death, only the day before, of Dr. Francis W. Peabody, and called for an expression of sympathy from the audience, which was spontaneously rendered. He then, in an appropriate manner, formally surrendered the keys of the building which were accepted on behalf of the President and Fellows by Mr. John F. Moors of the Harvard Corporation.

Dr. George E. Vincent, Chairman of the International Health Board of the Rockefeller Foundation was next introduced by Dr. Truesdale, and in a pithy and humorous address pictured the bewilderment of a student from a mediaeval university visiting the Dormitory. He went on to trace the origin of student guilds for mutual protection, the organization of independent professors into faculties, the development of academic discipline and the final evolution of the universities with their professional schools. At first the universities claimed no responsibility for their professional students who were not under discipline and who were uncared for. The Harvard Medical School Dormitory makes the recognition of the medical student as an integral part of the student body.

After the exercises opportunity to inspect the Dormitory was provided and tea was served in the living room, on which occasion Mrs. Lowell kindled a fire in the great fireplace, over which a portrait of Samuel Jason Mixter, the gift of the Aesculapian Club, will soon be hung.

At 7:30 dinner was served in Bowditch Hall to a large gathering of alumni, Dr. Truesdale presiding. Dr. Joslin was introduced as toastmaster and in a delightful fashion he introduced in turn Dr. Charles H. Best, co-discoverer of insulin, who told of Hart House, the student club of the University of Toronto; Mr. Harold S. Vanderbilt, chief donor of the Dormitory, who told of the interest in physical culture which had first prompted him to contribute to the Dormitory Fund; and Dr. Edsall, who outlined the advances in medical education which had been made at the Harvard Medical School. Dr. Joslin also introduced the first donor to the Dormitory; Dr. Shattuck; Dr. Rackemann, to whose energy so much of its success was due, and Mr. Shepley, the architect. Announcement was made of clinics to be held the following morning, and a tribute to Dr. John Collins Warren, to whose mind had originated the idea of the Dormitory a quarter of a century ago, was called for by Dr. Shattuck. An interesting event was the reading of an open letter of appreciation to Mr. Vanderbilt by the students living in the Dormitory.

## NEW HAMPSHIRE MEDICAL SOCIETY

### COOS COUNTY MEDICAL SOCIETY

THE annual meeting of the Coos County Medical Society will take place Friday, October the 21st, 1927, at the Androscoggin Country Club, Gorham, N. H. The following program has been prepared:

Organized Medical Defense.
Group Liability Insurance.
General Discussion.

1:00 P. M., Luncheon at Club House.

2:00 P. M., Problems of the New Hampshire State Medical Society, Emery M. Fitch, M.D., Pres. N. H. Medical Society, Claremont, N. H. Discussion. Dr. D. E. Sullivan, Sec. N. H. Medical Society, Concord, N. H. Dr. J. J. Cobb, Berlin, N. H.

3:00 P. M., How the Maine Medical Society Solved Its Legal Insurance Problems, Bertram L. Bryant, Sec. Maine Medical Society, Bangor, Me. Discussion. Dr. Thomas W. Luce, Portsmouth, N. H. Dr. William H. Leith, Lancaster, N. H.

3:45 P. M., A Layman and Insurance Adjuster's Viewpoint, S. A. T. Spence, Manchester, N. H.

4:00 P. M., Annual meeting, Election of Officers.

#### NOTES

In addition to Dr. Emery M. Fitch, President, and Dr. D. E. Sullivan, Secretary of the state society, several other prominent physicians from the southern part of the State expect to be present.

The Ladies' Auxiliary Society has arranged an attractive program.

The officers of the society are:

President, R. E. Wilder, Whitefield, N. H.:

Vice-president, H. E. Wilkinson, Berlin, N. H.; Secretary-treasurer, Homer H. Marks, Berlin, N. H.; Censor, Norman B. Dresser, Berlin, N. H.

## HARVARD MEDICAL SOCIETY

THE next regular meeting of the Harvard Medical Society will be held on Tuesday, October 25, at 8:15 p. m., in the Amphitheatre of the Peter Bent Brigham Hospital. Program: 1. Presentation of Cases. 2. Recent Typhoid Epidemic in Montreal, Dr. C. L. Connor. 3. Water-borne Epidemic of Typhoid Fever in Salem, Ohio, Dr. Henry A. Christian.

Students and physicians are cordially invited.

PERCIVAL BAILEY, *Secretary.*

## THE ANNUAL MEETING OF THE WACHUSETT MEDICAL IMPROVEMENT SOCIETY

THE Wachusett Medical Improvement Society held its annual meeting at the Holden Hospital, Holden, Massachusetts, October 5th, 1927.

Dr. M. Bronson Root of the Lyman School For Boys, read a most interesting paper on mental hygiene which proved of much value to the general practitioner and to the specialist; the paper contained much common sense in the mental care and training of young children.

The following officers were elected for the coming year:

Dr. Harry W. Trask, West Boylston, President.

Dr. Elisha Sears Lewis, Worcester, Treasurer.

Dr. Wm. B. Davidson, Rutland, Mass., Secretary.

WILLIAM B. DAVIDSON, M.D.

## SUFFOLK DISTRICT MEDICAL SOCIETY

October 5, 1927.

Doctors are cordially invited to attend the meetings of the Suffolk District Medical Society and the Boston Medical Library, to be held during 1927-1928 at the Boston Medical Library, 8 The Fenway, Boston, at 8:15 o'clock on the dates specified.

October 26. *Stated Meeting.* "Tuberculosis and the Medical Profession." Dr. Allen K. Krause, Johns Hopkins Hospital.

November 16. *Surgical Section.* "Stomach Surgery." Dr. Donald C. Balfour, Mayo Clinic.

December 28. *Medical Section.* "Functions and Organization of the Boston City Hospital."

January 25, 1928. *General Meeting* in association with *The Boston Medical Library.* Dr. George W. Crile, Lakeside Clinic, Cleveland, Ohio. Title to be announced later.

February 29. *Surgical Section.* Subject to be announced later.

March 28. *Medical Section.* "The Use and Misuse of Vaccines. Dr. Hans Zinsser, Dr. Francis M. Rackemann, Dr. Charles H. Lawrence.

April 25. *Annual Meeting.* Election of Officers. Paper of the evening to be announced later.

ELLIOTT P. JOSLIN, M.D.,
*President,*
*Suffolk District Medical Society.*
ARTHUR H. CROSBIE, M.D.,
*Secretary,*
*Suffolk District Medical Society.*
MALCOLM STORER, M.D.,
*Boston Medical Library.*
REGINALD FITZ, M.D.,
*Chairman Medical Section,*
*Suffolk District Medical Society.*
JOE V. MEIGS, M.D.,
*Chairman, Surgical Section,*
*Suffolk District Medical Society.*

## NEW HAVEN DOCTORS READ PAPERS BEFORE THE SECTION OF GENITO-URINARY SURGERY OF THE NEW YORK ACADEMY OF MEDICINE OCTOBER 19, 1927

THE names of the doctors and title of papers read at this meeting are as follows:

1. Tissue culture from interstitial cystitis, Charles Y. Bidgood, New Haven (by invitation).

2. Iodized oil as a pyelographic median, C. H. Neuswanger, New Haven (by invitation).

3. Renal circulation following various types of nephrotomies, Clyde Leroy Deming, New Haven (by invitation).

4. Presentation of a Case of Prostatic cyst with congenital absence of right kidney, Frederick Roberts, New Haven (by invitation).

## THE NORFOLK DISTRICT MEDICAL SOCIETY

A STATED meeting of the Society will be held at the Long Island Hospital, Tuesday, October 25th, 1927.

The Superintendent and Executive Committee of the Hospital have very kindly arranged an interesting meeting consisting of short communications from the Orthopedic, Surgical, Neurological and Roentgenological Departments. Following this, ward walks will be conducted and a collation will be served.

Transportation will be furnished by boat leaving Eastern Avenue Wharf at 4 P. M. and the return trip will be arranged to arrive in Boston at 9 P. M. Those desiring to take advantage of the parking facilities on the wharf should arrive early.

FRANK S. CRUICKSHANK, M.D., *Sec.*
23 Bay State Rd., Boston.

## AMERICAN SOCIETY OF TROPICAL MEDICINE

Organized 1903

TWENTY-THIRD ANNUAL MEETING TO BE HELD AT AMPHITHEATER, BUILDING E, HARVARD UNIVERSITY MEDICAL SCHOOL, BOSTON, MASS., OCTOBER 21 AND 22, 1927

OFFICERS

Dr. George C. Shattuck, of Boston, Mass., President.

Dr. Charles S. Butler, United States Navy, Dr. W. E. Deeks, of New York City, Vice-Presidents.

Dr. Benjamin Schwartz, of Washington, D. C., Secretary-Treasurer.

Dr. Damaso Rivas, of Philadelphia, Pa., Assistant Secretary.

*Councillors*—Dr. Karl F. Meyer, of San Francisco, Calif.; Dr. Kenneth M. Lynch, of Columbia, S. C.; Dr. Sidney K. Simon, of New Orleans, La.; Dr. Frank Smithies, of Chicago, Ill.; Dr. G. R. Callender, United States Army.

*Editor*—Dr. Charles F. Craig, United States Army.

All regular physicians or scientists interested in tropical medicine are invited to attend the meeting.

PROGRAM

FRIDAY, OCTOBER 21

9-10 A. M.

Members of the Society and their guests are invited to visit the laboratories of the Departments of Tropical Medicine (Room 229), Pathology (Room 295), and Bacteriology (Room 323) in Building D I, Harvard Medical School.

10 A. M.

1. Presidential Address (10 minutes).

2. Observations and Experiments on a Tritrichomonas of Man. (By invitation.) Dr. L. R. Cleveland, Harvard University Medical School, Boston, Mass.

3. Complement Fixation in the Diagnosis of Infections with *Endamoeba histolytica*. Dr. Charles F. Craig, Army Medical School, Washington, D. C.

4. A Specific Analysis of the Effects of Flagellated Protozoa of the Intestine. Dr. Kenneth M. Lynch, Medical College of South Carolina, Charleston, S. C.

5. Experimental Studies on the Viability and Transmission of *Trichomonas hominis*. (By title.) Dr. Robert W. Hegner, Johns Hopkins University, Baltimore, Md.

6. Trichomonas in Tissue Cultures. Dr. Mary Jane Hogue, University of Pennsylvania, Philadelphia, Pa.

7. Some Observations on the Malaria Incidence in West Africa. Dr. Henry Hanson, of Sioux City, Iowa.

8. Treatment of Malaria with Plasmochin. Dr. William Krauss, College of Medicine, University of Tennessee, Memphis, Tenn.

12:30 P. M.

Luncheon for members and guests will be served in the faculty dining room of the new Medical School Dormitory, Vanderbilt Hall.

1:30 P. M.

*Business Meeting*—Election of officers. Election of new members. Other business.

2 P. M.

9. Hookworm and Ascaris Infection in Panama. Dr. W. W. Cort, Johns Hopkins University, Baltimore, Md.

10. Parasite Specificity in Relation to Acquired Immunity and to the "Age Resistance" of the Host in Infections with Certain Helminths. Dr. J. H. Sandground, Harvard University Medical School, Boston, Mass.

11. Creeping Eruption. (By invitation.) Dr. G. F. White, of Washington, D. C., will read a joint paper by Dr. J. L. Kirby-Smith, Mr. W. E. Dove and Dr. G. F. White.

12. Demonstration of Parasites of the Intestine *in vivo* showing the removal of these Parasites by the Intra-Intestinal Thermal Method. Dr. Damaso Rivas, University of Pennsylvania, Philadelphia, Pa.

13. The Anti-snake Bite Campaign in Texas and in the Subtropical United States. Dr. Afranio do Amaral.

14. Intestinal Parasitism in Philadelphia. Dr. Damaso Rivas and Dr. Charles A. Fife, University of Pennsylvania, Philadelphia, Pa.

15. Studies on Schistosomiasis in Porto Rico. Dr. R. A. Lambert and Dr. W. A. Hoffman, University of Porto Rico, San Juan, Porto Rico.

16. Mollusks of Importance for Human and Veterinary Medicine. (By invitation.) Dr. Joseph Bequaert, Harvard University Medical School, Boston, Mass.

SATURDAY, OCTOBER 22

9-10 A. M.

Members of the Society and their guests are invited to visit the laboratories of the Departments of Hygiene (Room 238) and of Comparative Pathology (Room 230) in Building E II, Harvard Medical School.

10 A. M.

17. Some Points upon the Pathology of Yellow Fever. (By invitation.) Dr. Oskar Klotz, University of Toronto, Toronto, Canada.

18. The Acclimatization of *Ixodiphagus caucutei* and the Results of Its Introduction upon the Tick Population of Naushon Island, Massachusetts. (By invitation.) Dr. Burt Wolbach, Harvard University Medical School, will read for Dr. M. Larrousse.

19. Clinical Aspects of Sodoku. Dr. H. C. Solomon and Dr. A. Berk, Harvard University Medical School, Boston, Mass.

20. Bronchiospirochaetosis. Dr. Lee S. Huizenga, of New Haven, Conn.

21. The Tragedy of Unrecognized Syphilis in Cardiac Disease. Dr. Louis F. Bishop, of New York City.

22. The Diagnosis of Endemic Yellow Fever. Dr. W. H. Hoffmann, of Havana, Cuba.

23. The Biological Action of Radian Energy. (By title.) Dr. Eugene R. Whitmore, Georgetown University, Washington, D. C.

24. Haemoglobinemia and Haemoglobinuria. (By title.) Dr. Eugene R. Whitmore, Georgetown University, Washington, D. C.

25. Observations on Some Pathological Conditions Observed in West Africa. Dr. Richard P. Strong, Harvard University Medical School, Boston, Mass.

26. A Species of the Cestode Genus Bertiella in Man and the Chimpanzee in Cuba. Dr. Eloise B. Cram, Bureau of Animal Industry, Washington, D. C.

*Special Notices to Members and Guests on the Program*—Papers presented at the meeting may be published in the official journal of the Society, *The American Journal of Tropical Medicine*. Although speakers will probably prefer to present their papers in accordance with the usual custom, informally and as briefly as possible so that there may be opportunity for discussion without interference with the completion of the program within the allotted time, it is desired that they bring with them and deliver to the Secretary at the meeting, their complete manuscripts in final form for publication. This is very important to the Editor, who must conform to a time schedule established by the printers.